

The diagram illustrates a cross-section of a liquid crystal device. It consists of several layers stacked vertically. At the top is a layer labeled 'Polarizer 6'. Below it is a layer labeled ' $\lambda/4$ wave plate 7'. This is followed by 'Substrate 1'. Below the substrate is a 'Transmissive electrode 4'. Underneath the electrode is an 'LC layer 5'. Below the LC layer is a 'Reflective electrode region 3 (R)', which is shaded with diagonal lines. At the very bottom is 'Substrate 2'.

Polarizer 6

$\lambda/4$ wave plate 7

Substrate 1

Transmissive electrode 4

LC layer 5

Reflective electrode region 3 (R)

Substrate 2

Polarizer 6
Phase compensation element ($\lambda/4$ wave plate) 7
Substrate 1
Transmissive electrode 4
LC layer 5
Reflective electrode region 3 (R) / Transmissive electrode region 8 (T)
Substrate 2
Phase compensation element ($\lambda/4$ wave plate) 10
Polarizer 9

FIG. 3


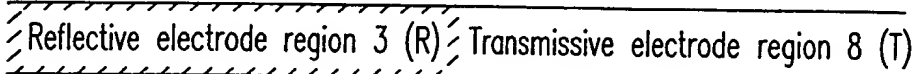

Polarizer 6	
Phase compensation element ($\lambda/4$ wave plate) 7	
Phase compensation element 11	
Substrate 1	
Transmissive electrode 4	
LC layer 5	
	
Reflective electrode region 3 (R)	Transmissive electrode region 8 (T)
Substrate 2	
Phase compensation element 12	
Phase compensation element ($\lambda/4$ wave plate) 10	
Polarizer 9	

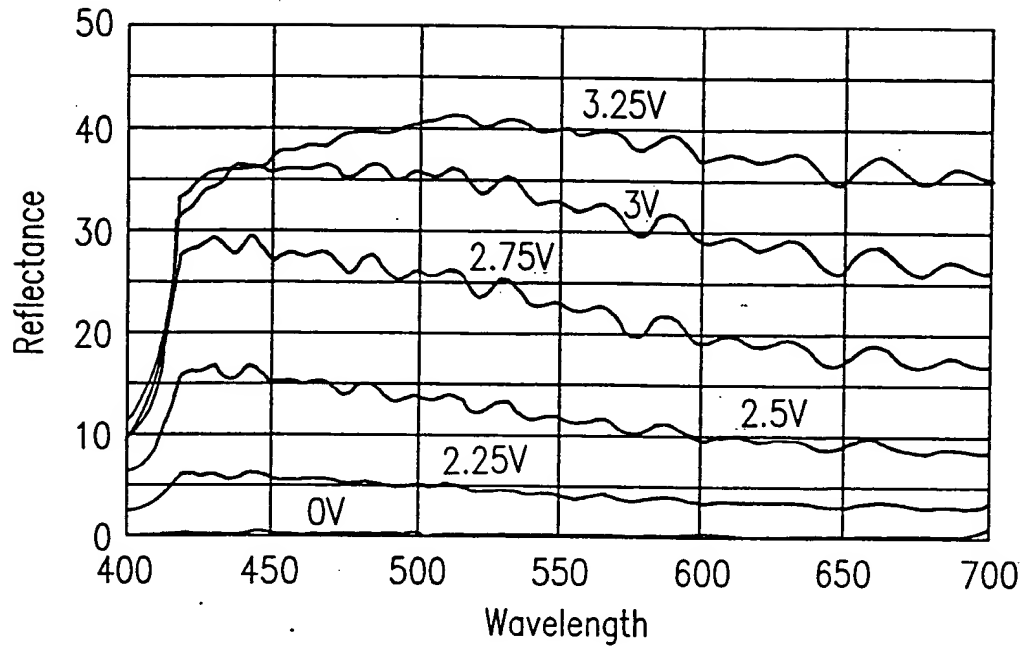
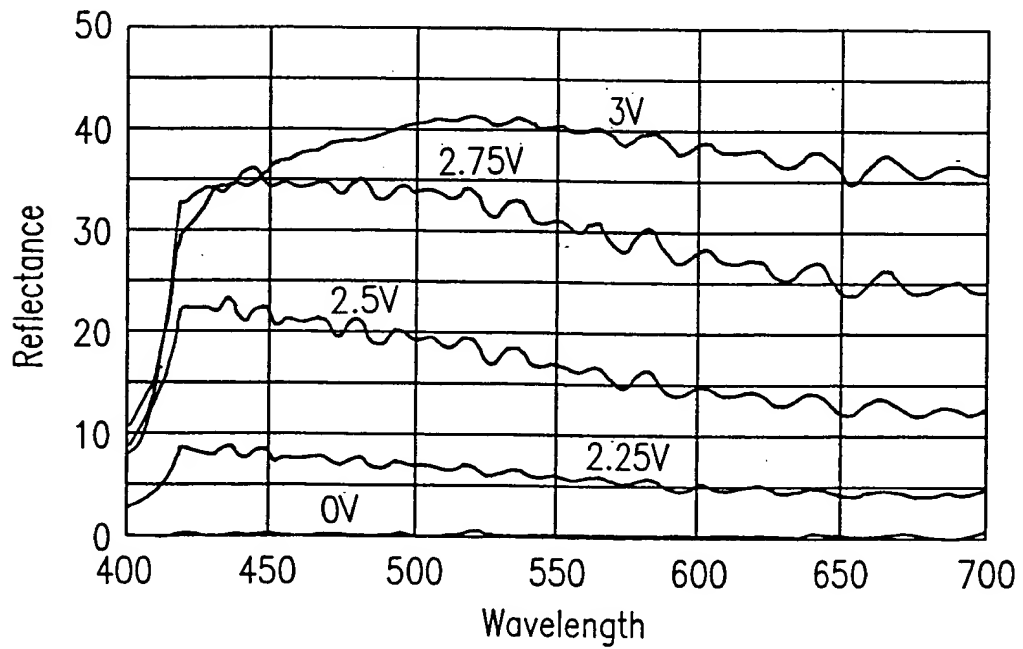
FIG. 4*FIG. 5*

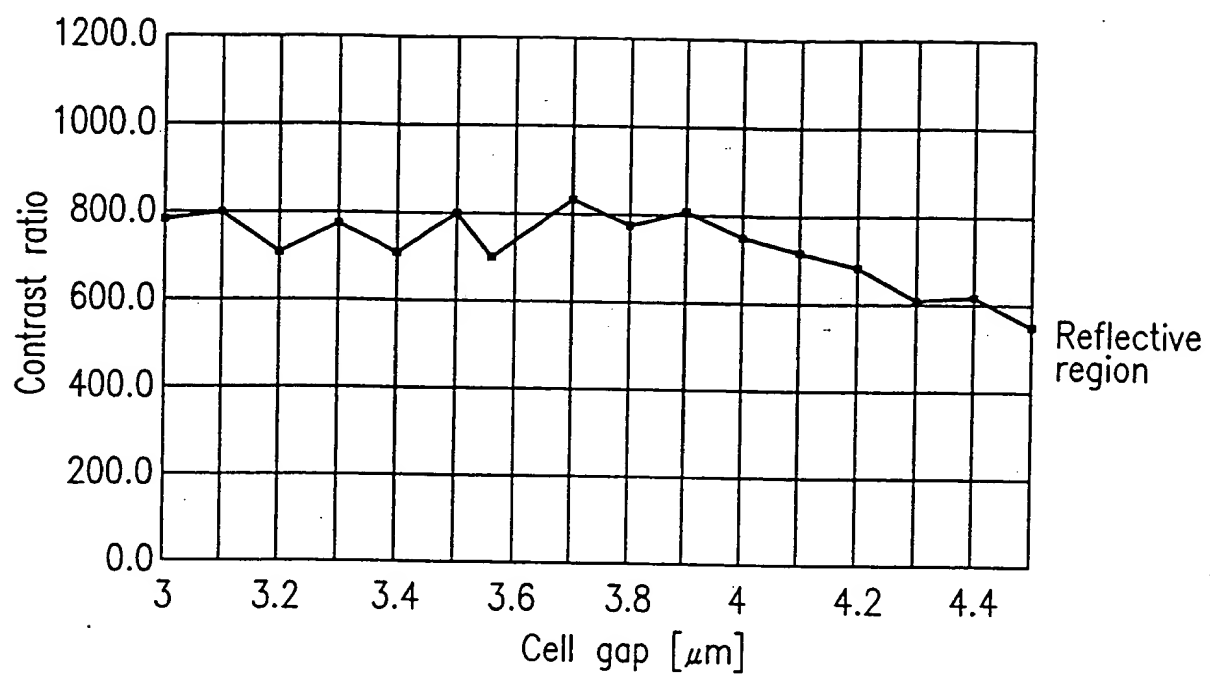
FIG. 6

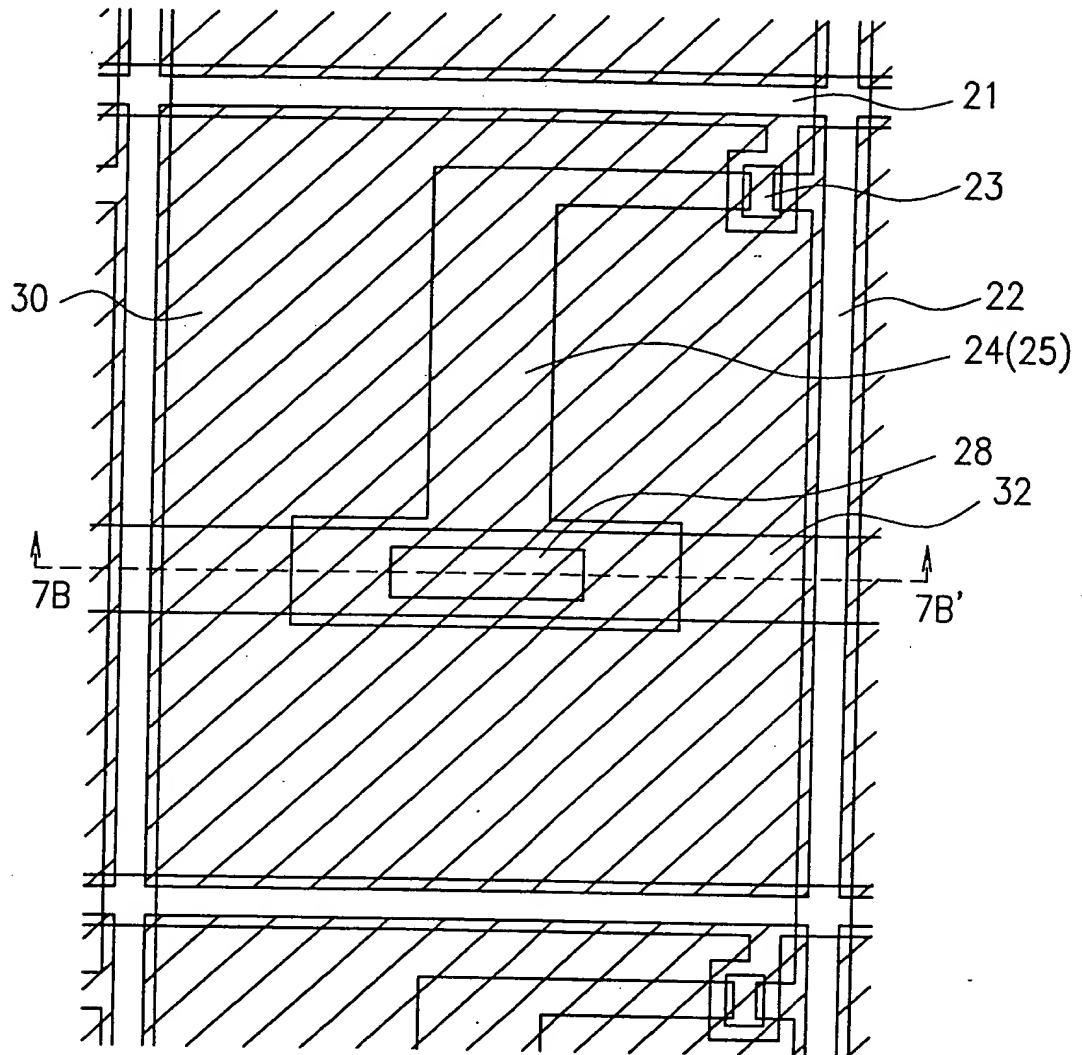
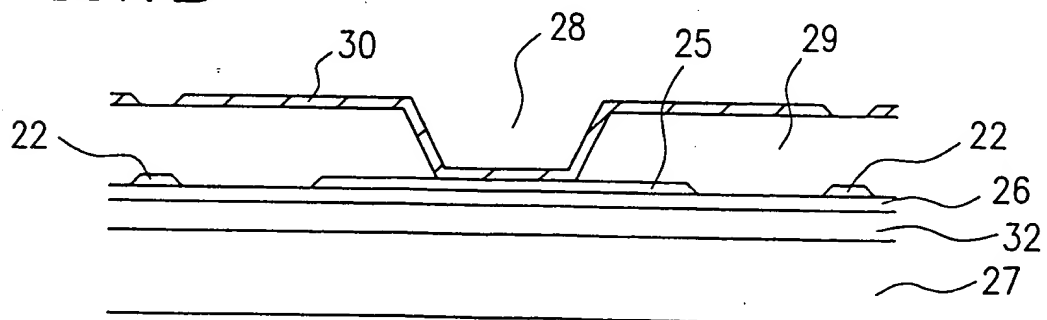
FIG. 7A*FIG. 7B*

FIG. 8A

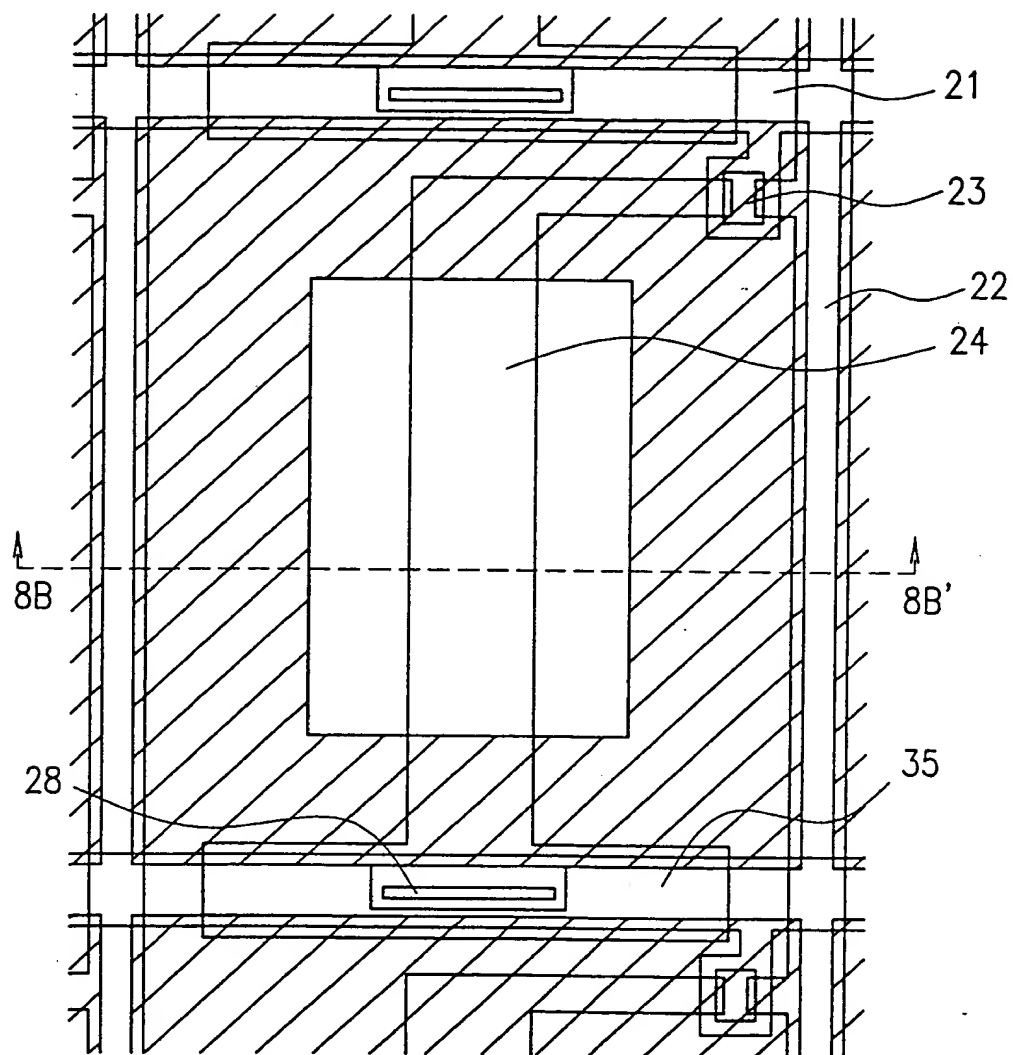


FIG. 8B

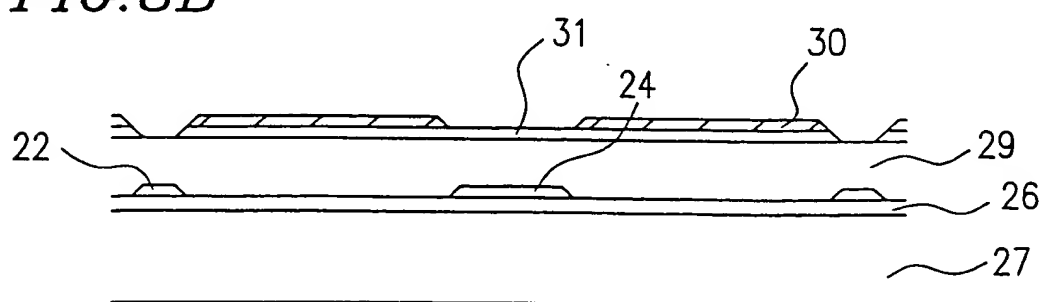


FIG. 8C

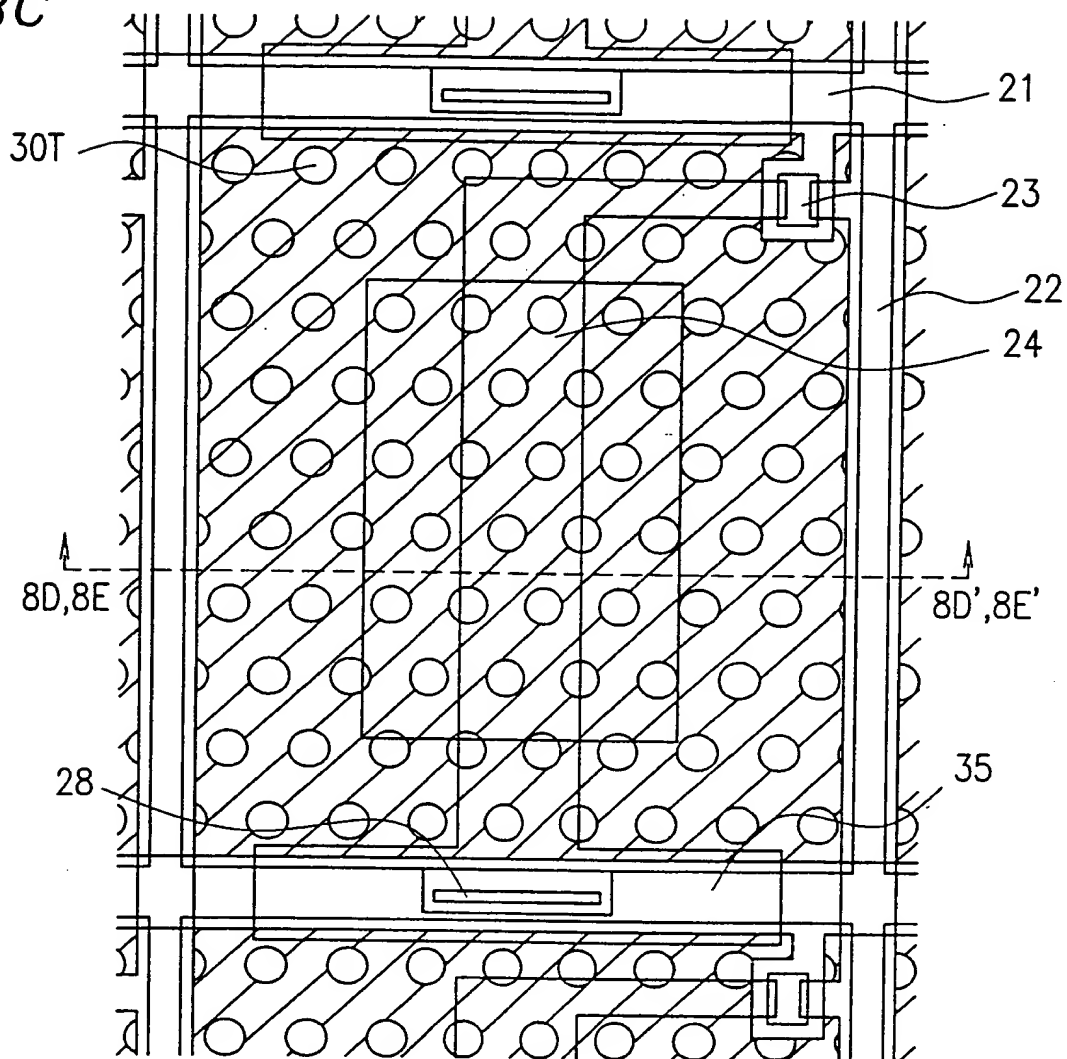


FIG. 8D

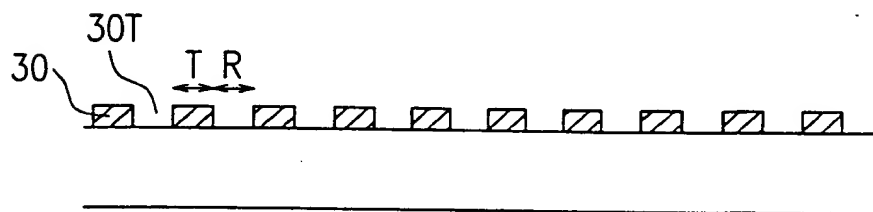


FIG. 8E

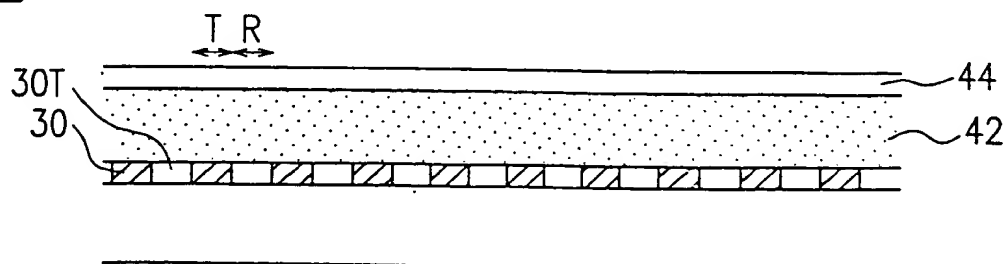


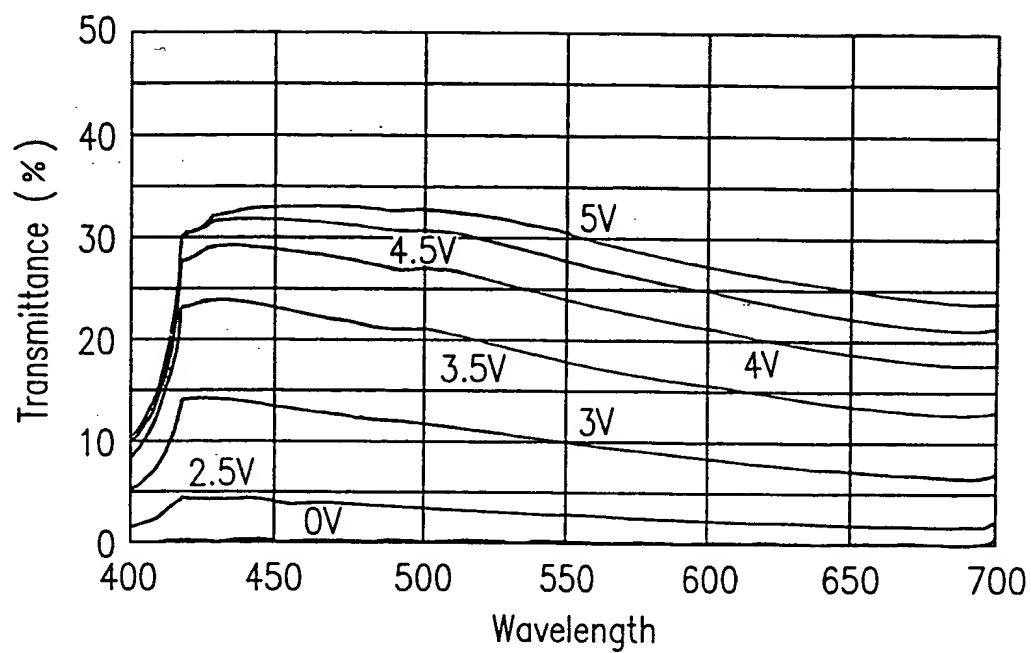
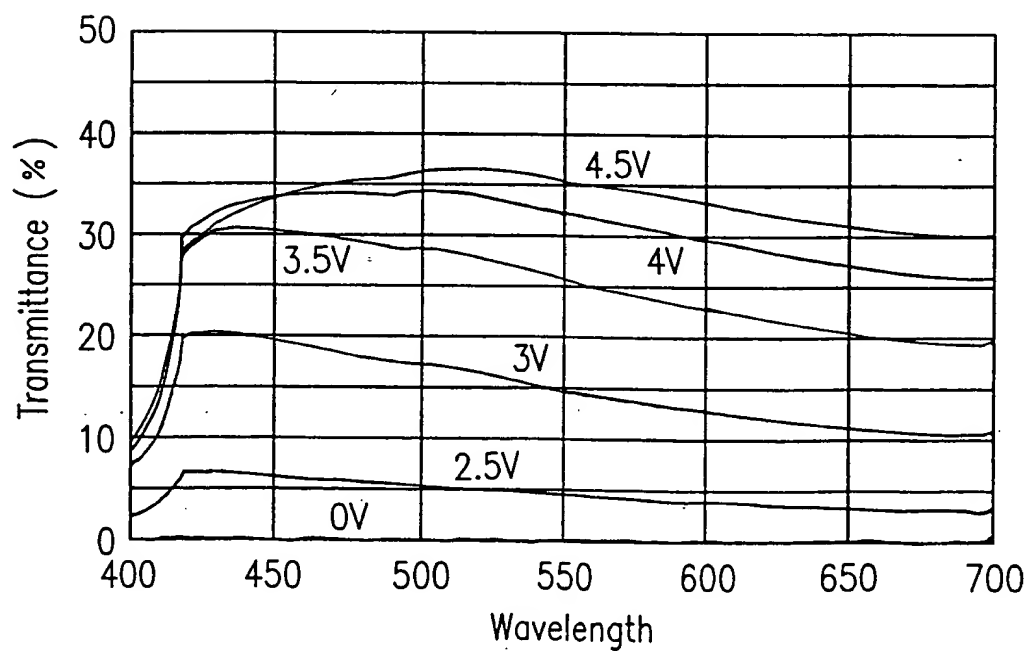
FIG. 9*FIG. 10*

FIG. 11

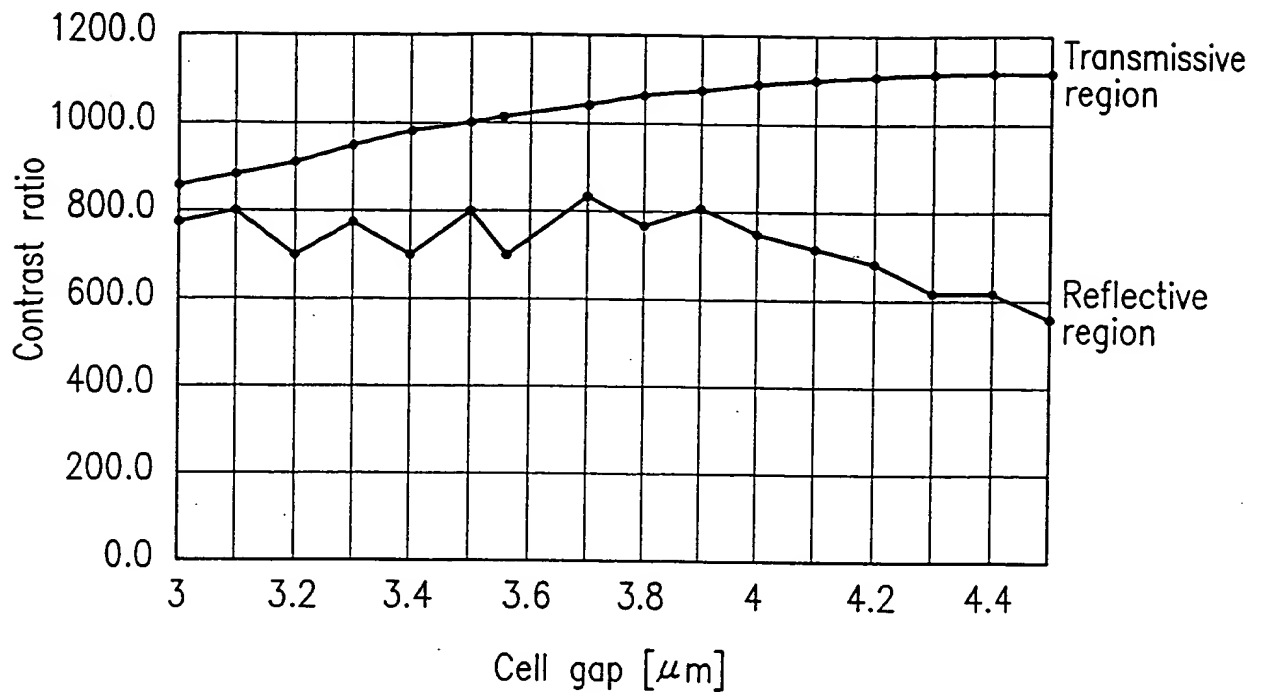


FIG. 12

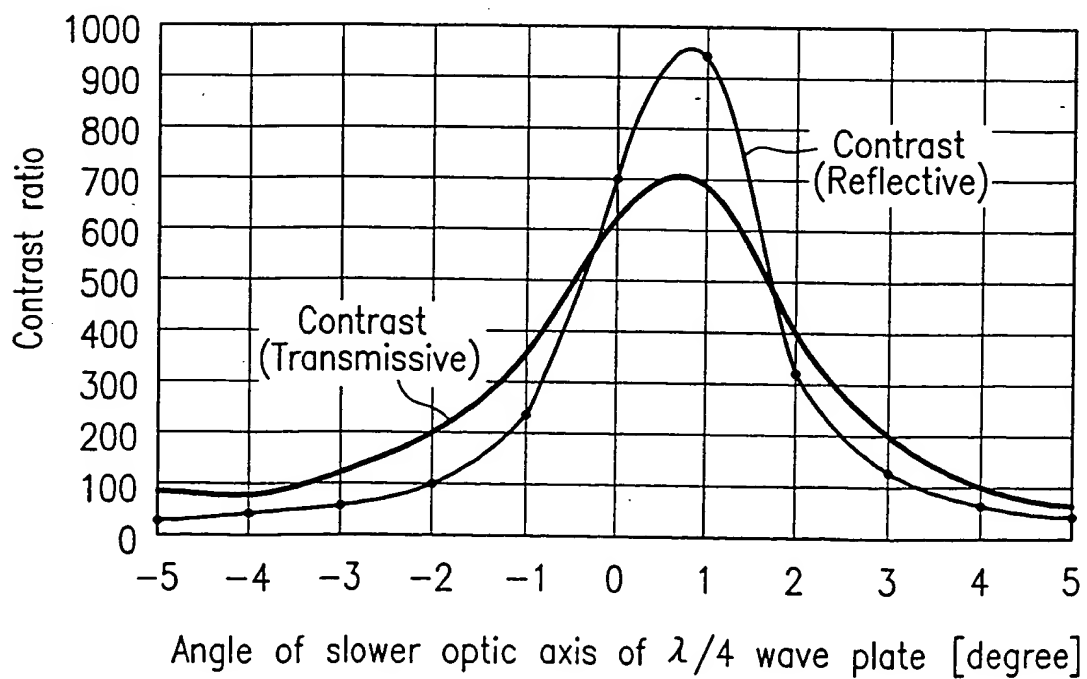


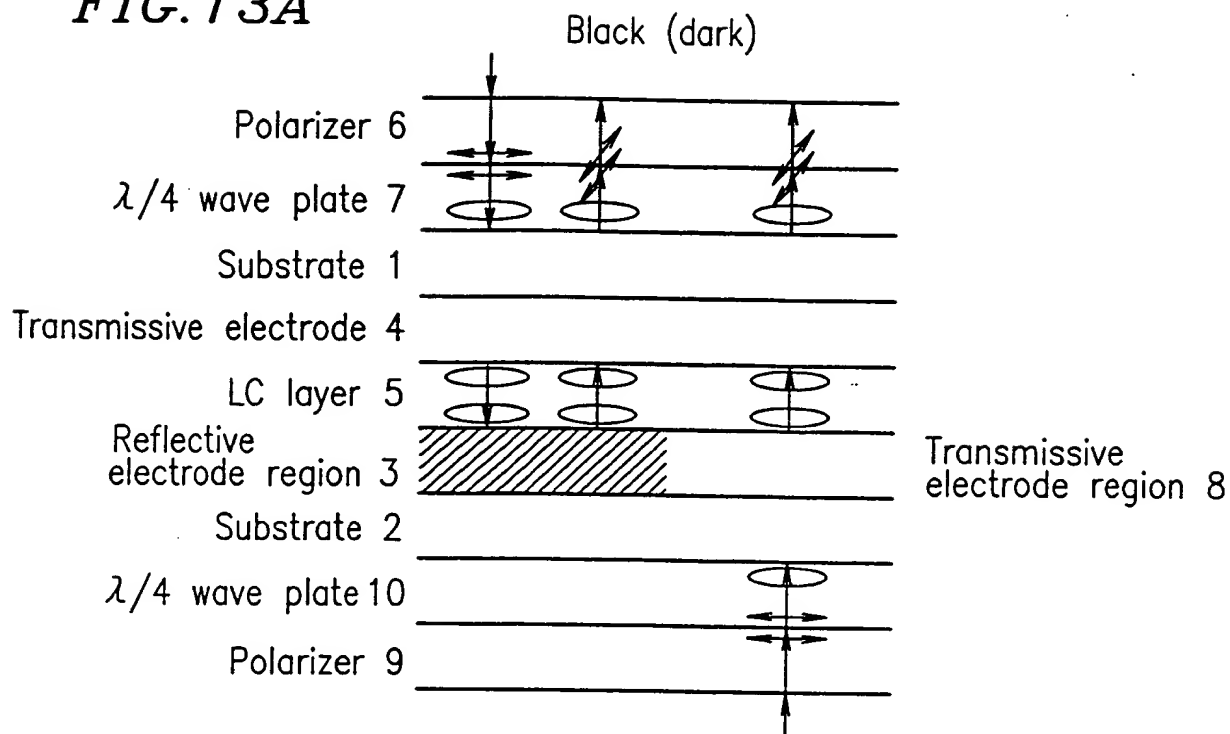
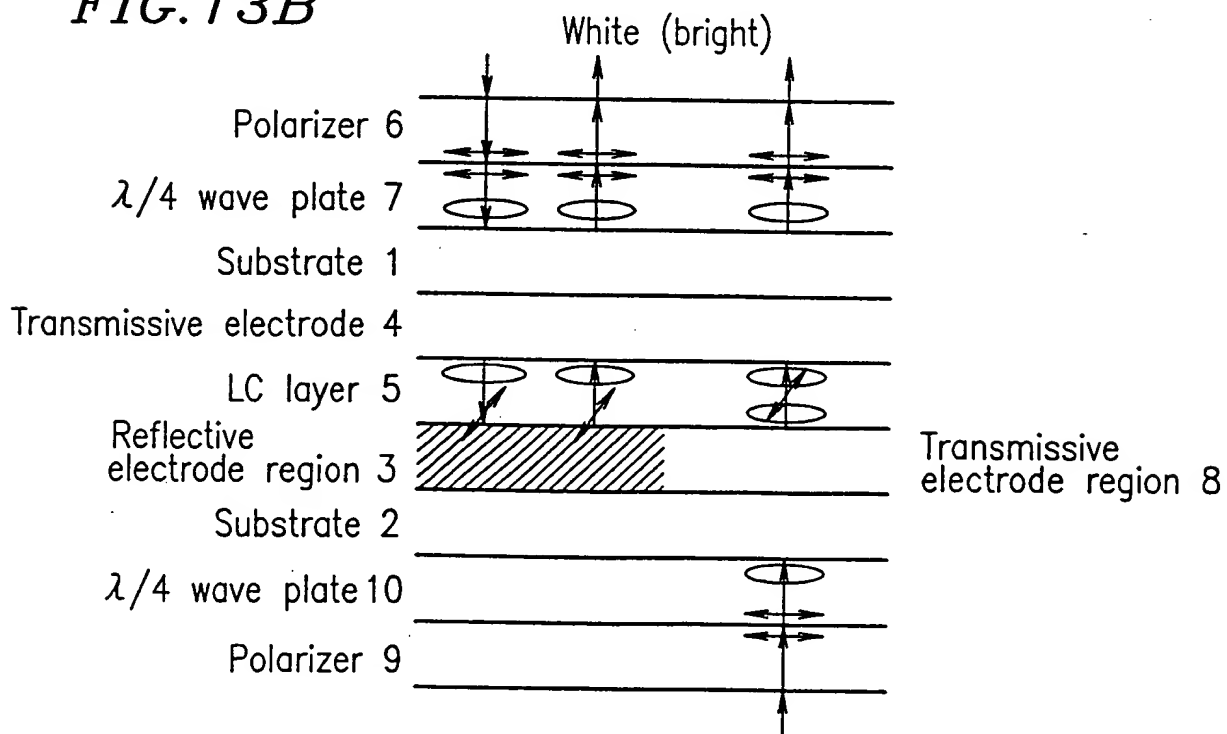
FIG. 13A**FIG. 13B**

FIG. 14A

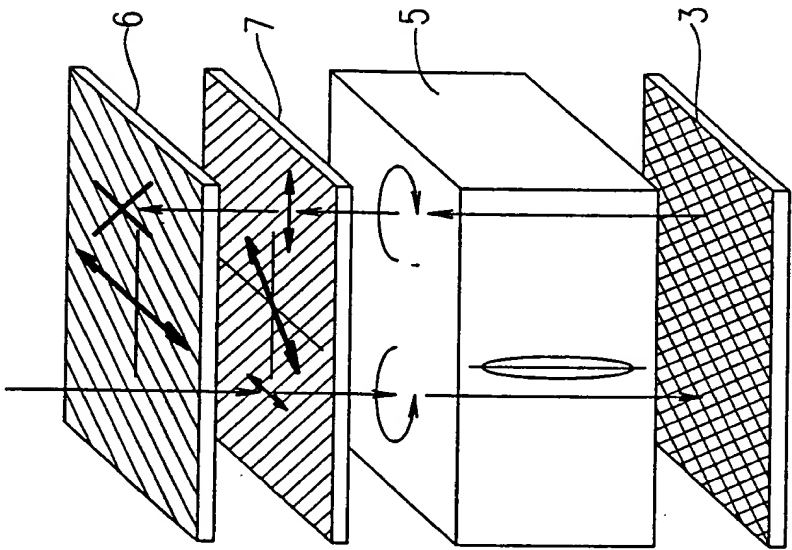


FIG. 14B

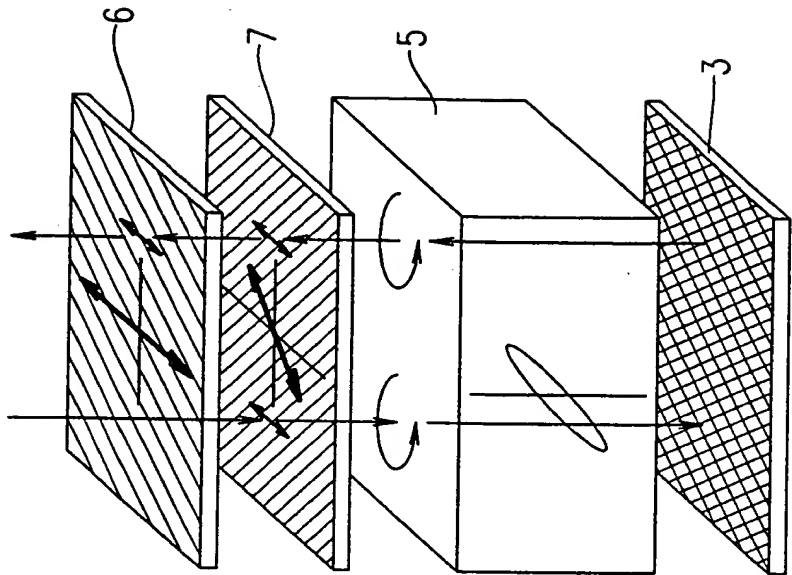


FIG. 15A

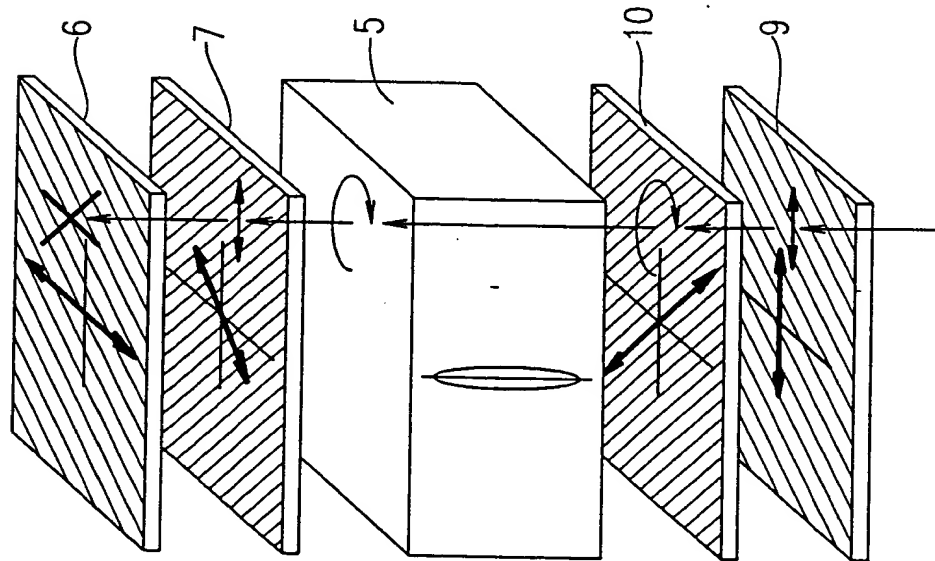


FIG. 15B

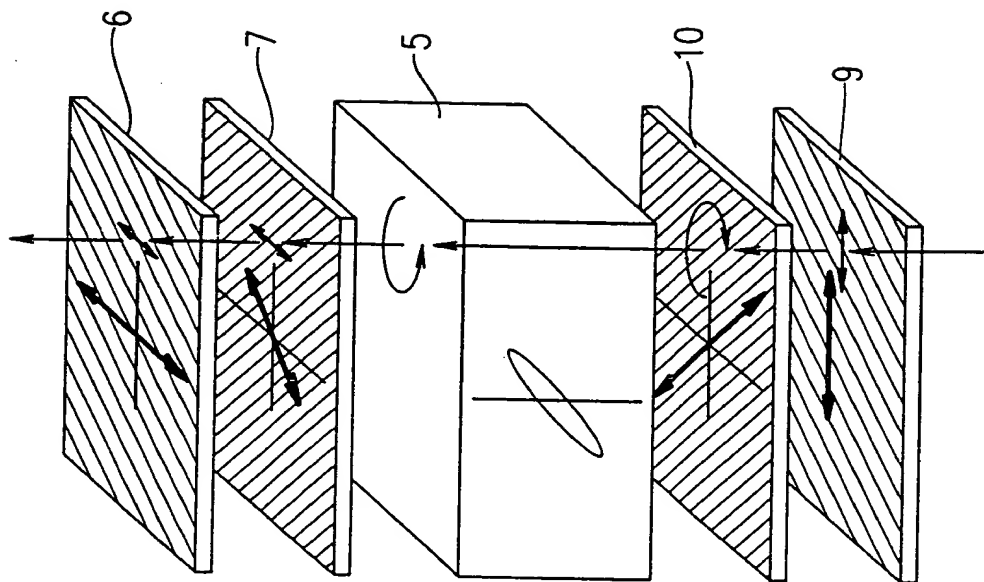


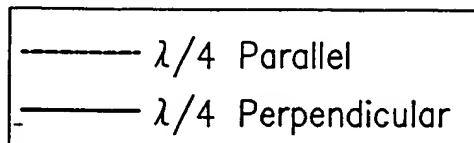
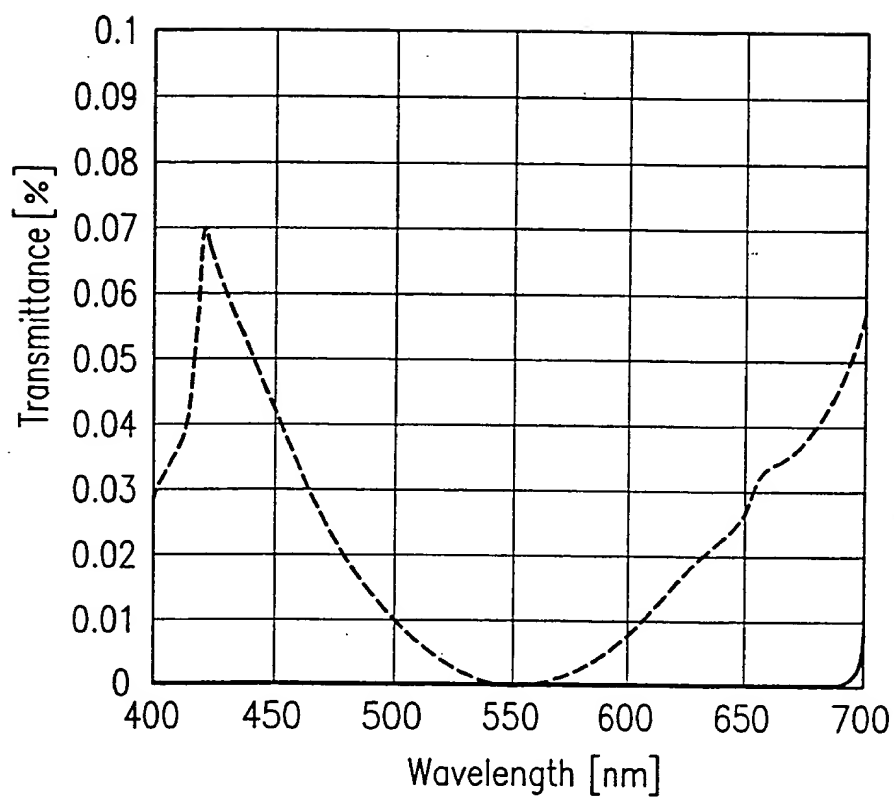
FIG. 16

FIG. 17

Polarizer 6

Phase compensation element 11

Phase compensation element ($\lambda/4$ wave plate) 7

Substrate 1

Transmissive electrode 4

LC layer 5

/// Reflective electrode region 3 (R) // Transmissive electrode region 8 (T) ///

Substrate 2

Phase compensation element ($\lambda/4$ wave plate) 10

Phase compensation element 12

Polarizer 9

FIG. 18A

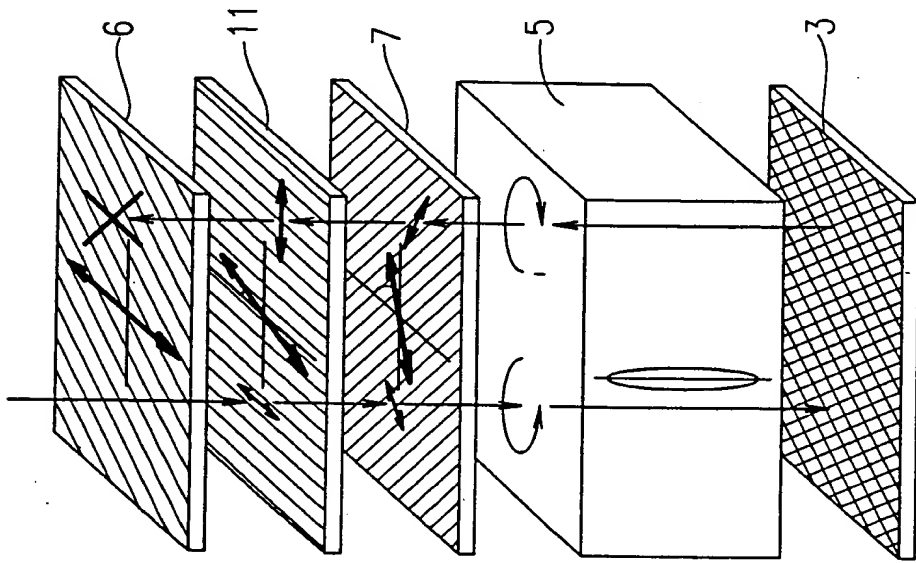


FIG. 18B

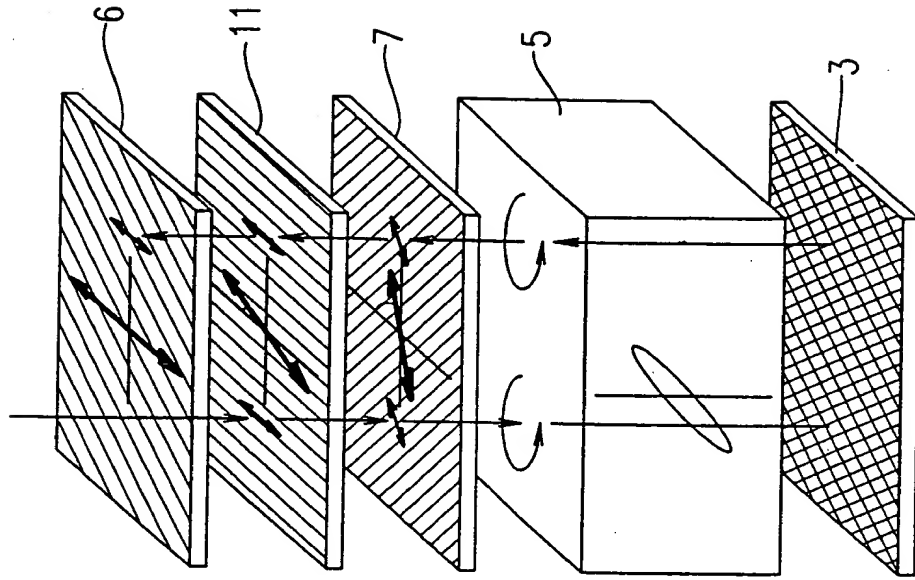


FIG. 18C

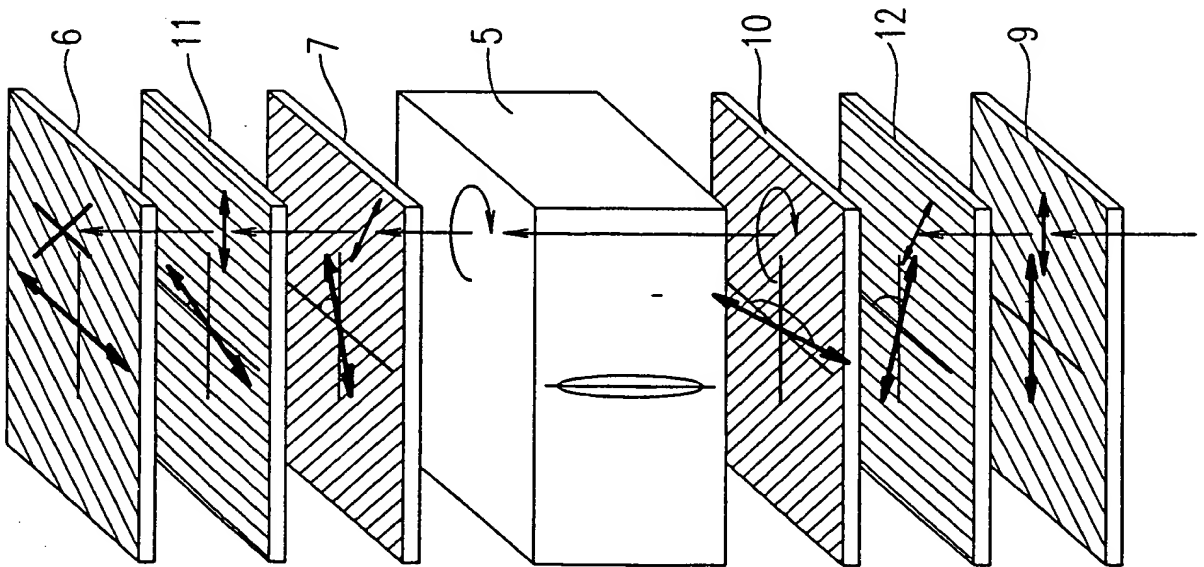


FIG. 18D

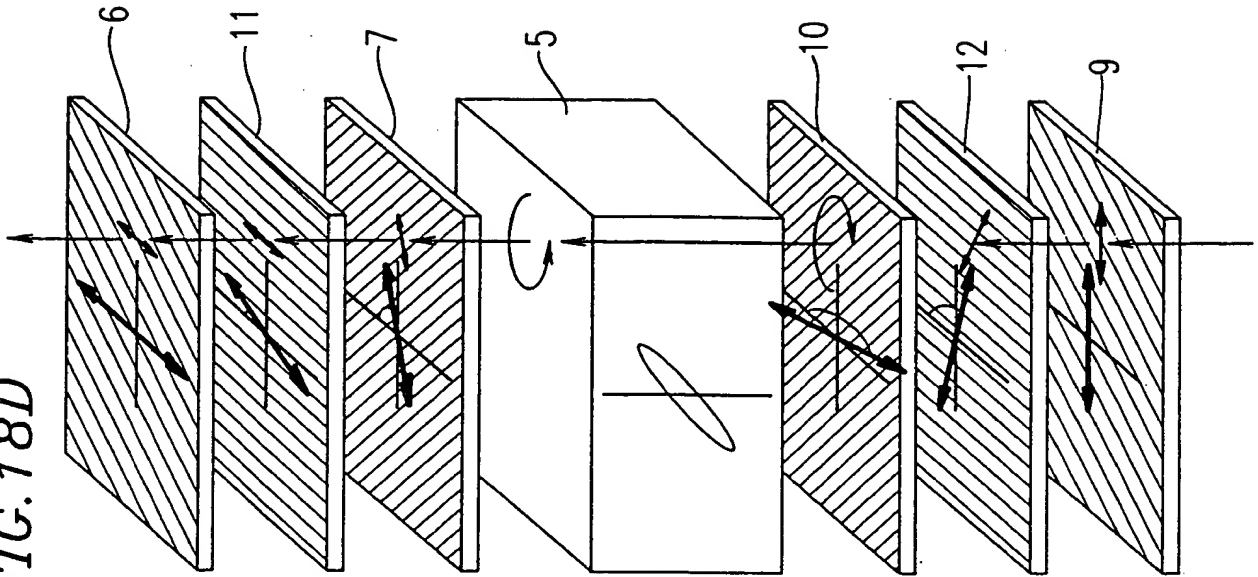
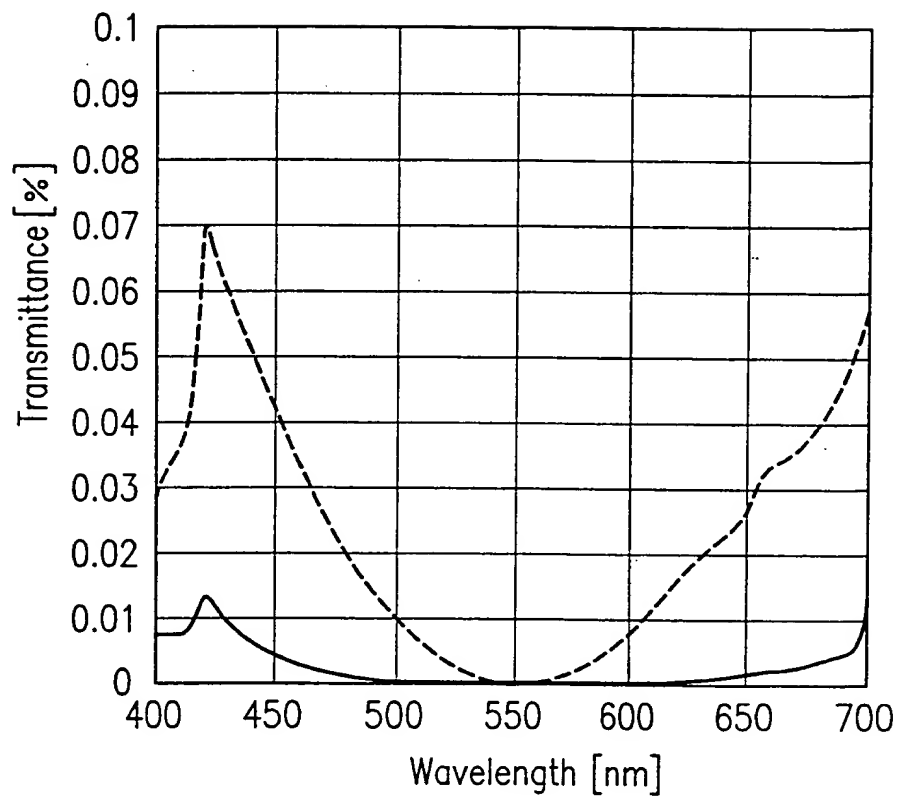
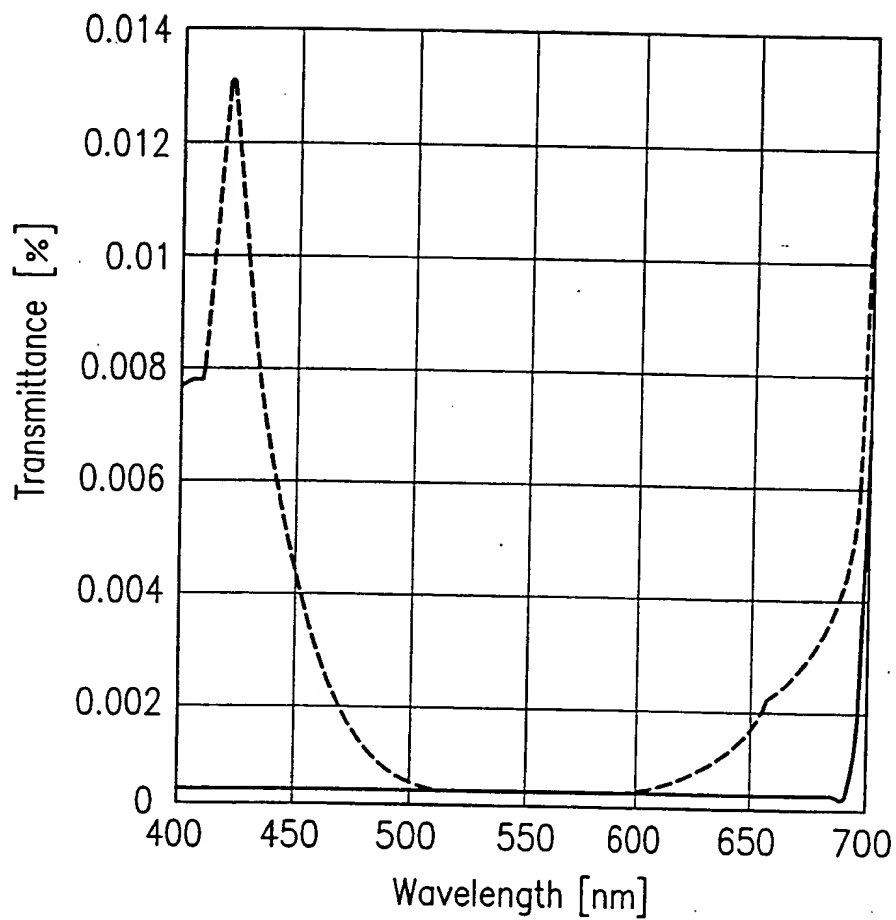


FIG. 19

— $\lambda/4$ Parallel
- $\lambda/4 + \lambda/2$ Parallel

FIG. 20

— $\lambda/4 + \lambda/2$ Parallel
— $\lambda/4 + \lambda/2$ Perpendicular

FIG. 21

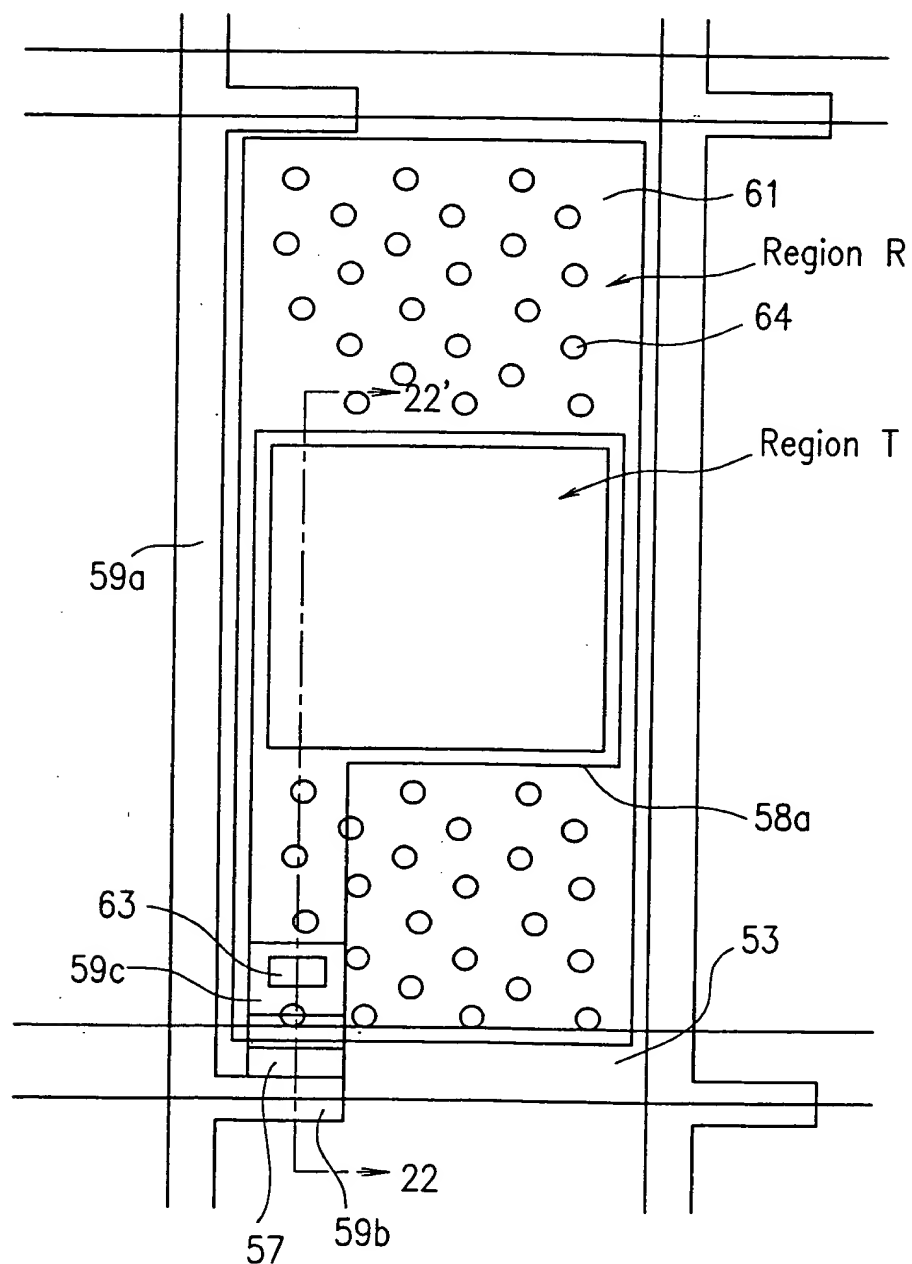


FIG. 22

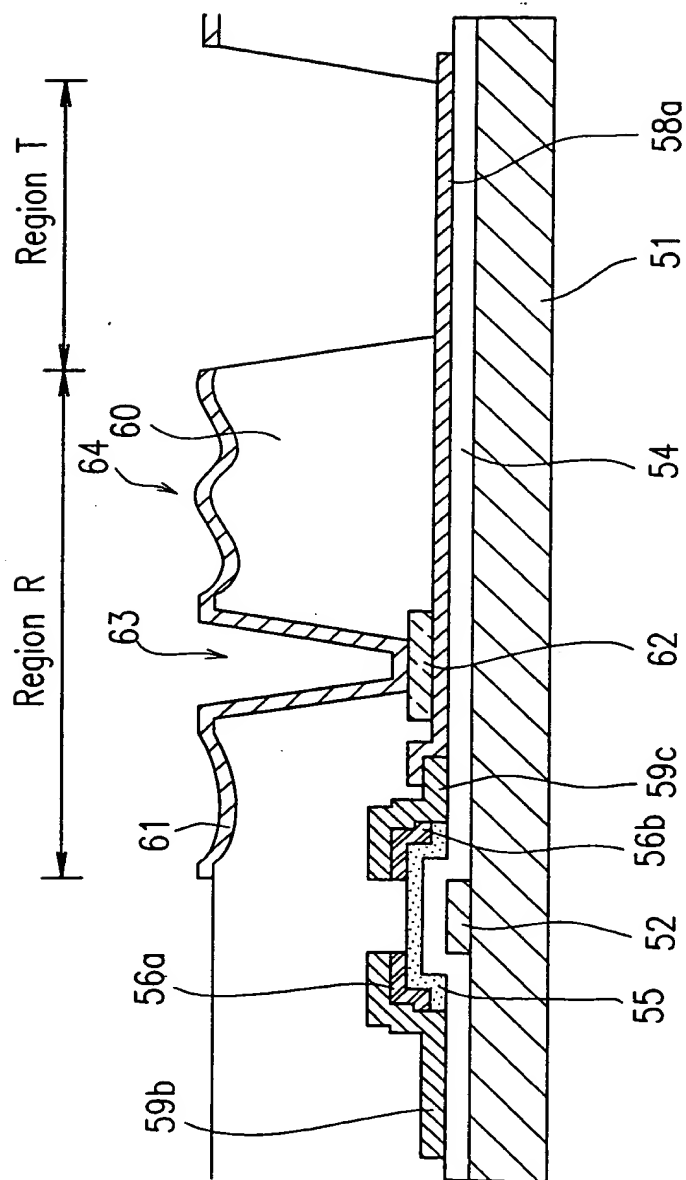


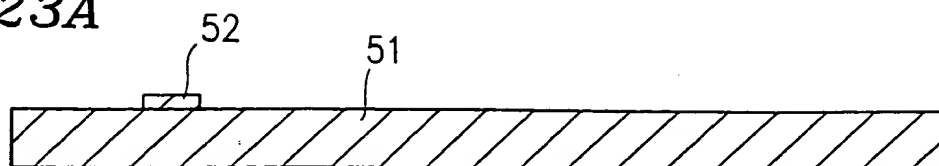
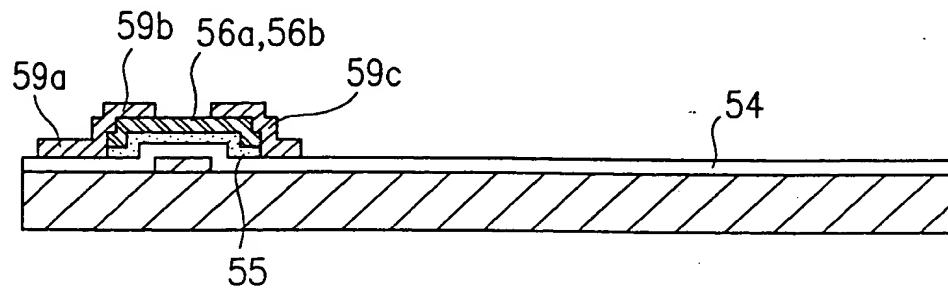
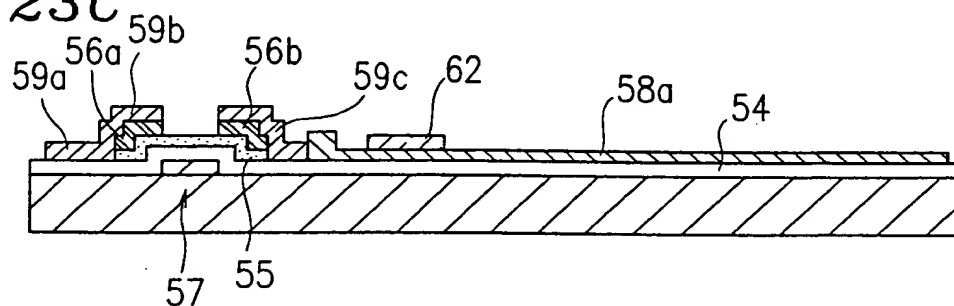
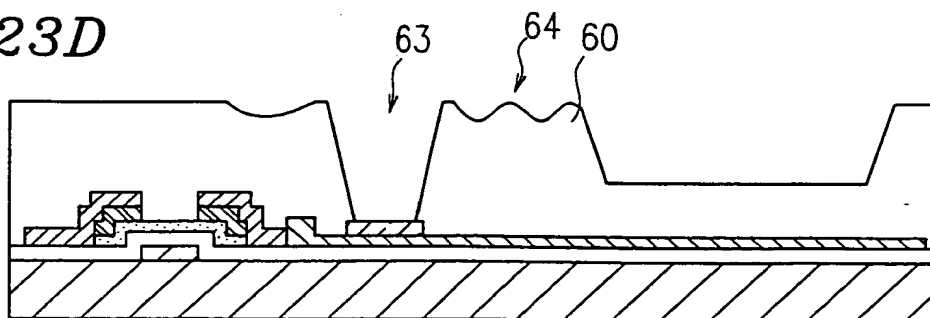
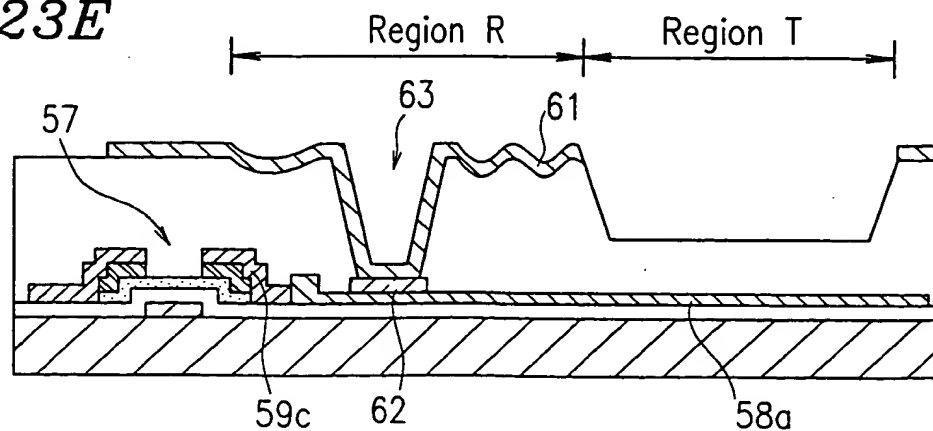
FIG. 23A*FIG. 23B**FIG. 23C**FIG. 23D**FIG. 23E*

FIG. 24

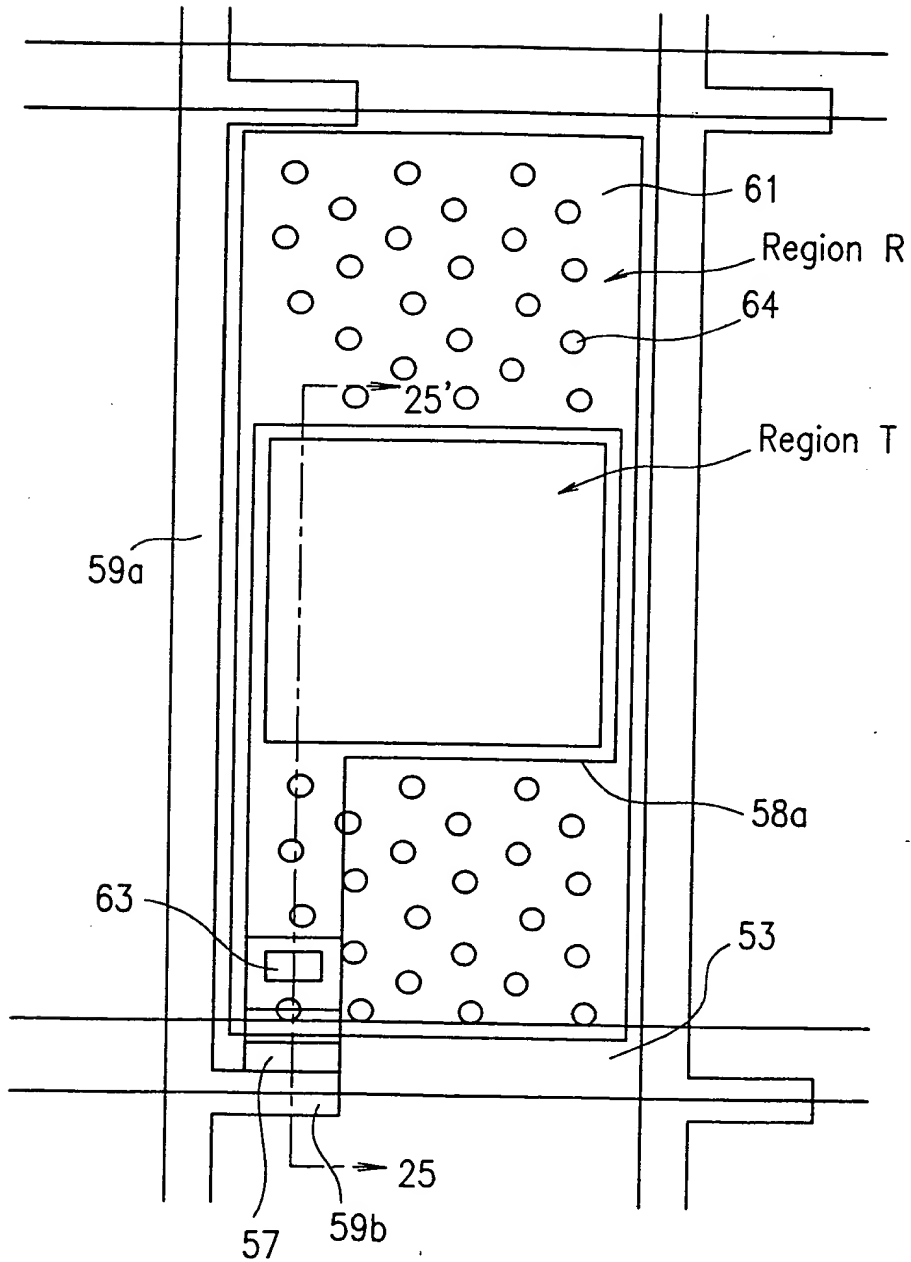


FIG. 25

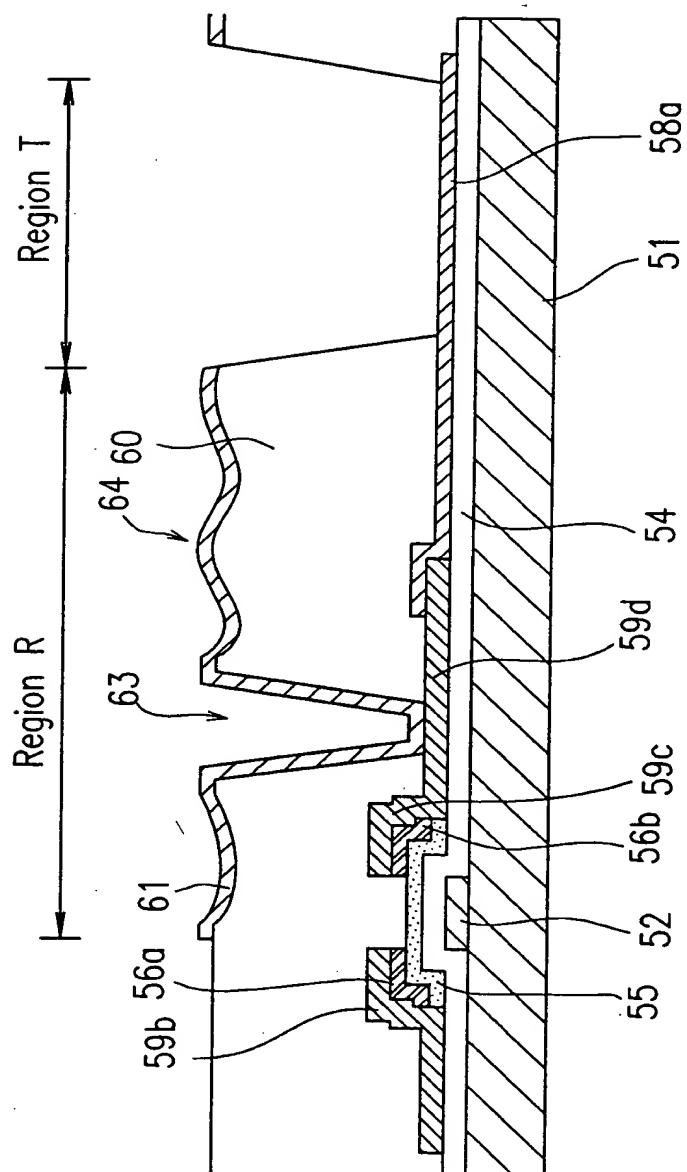


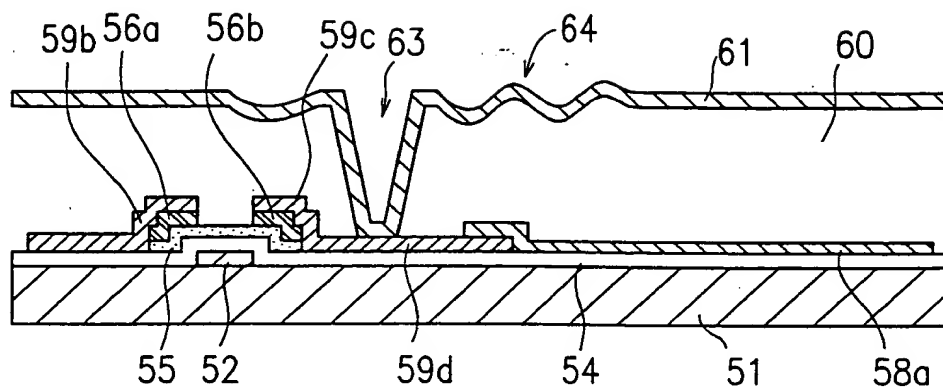
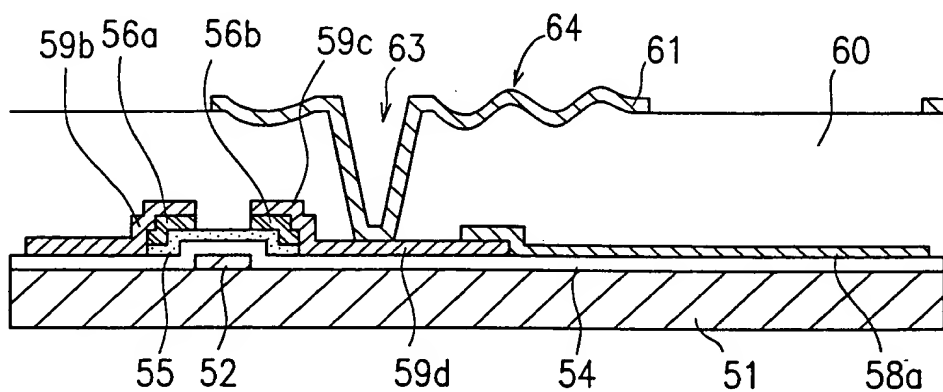
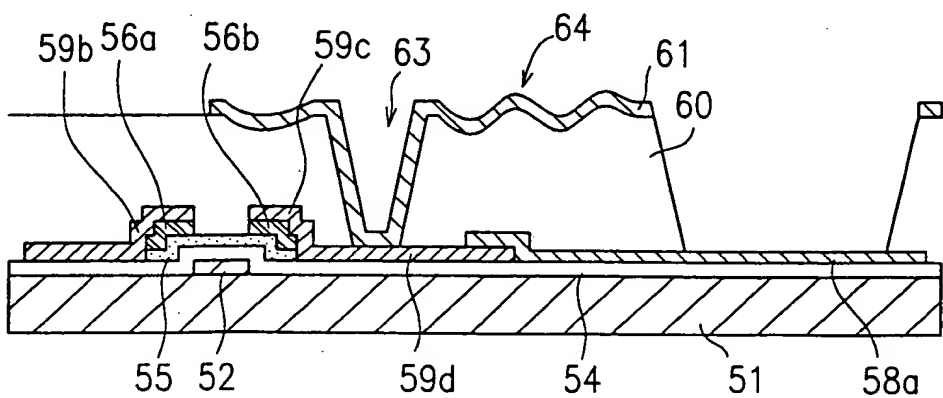
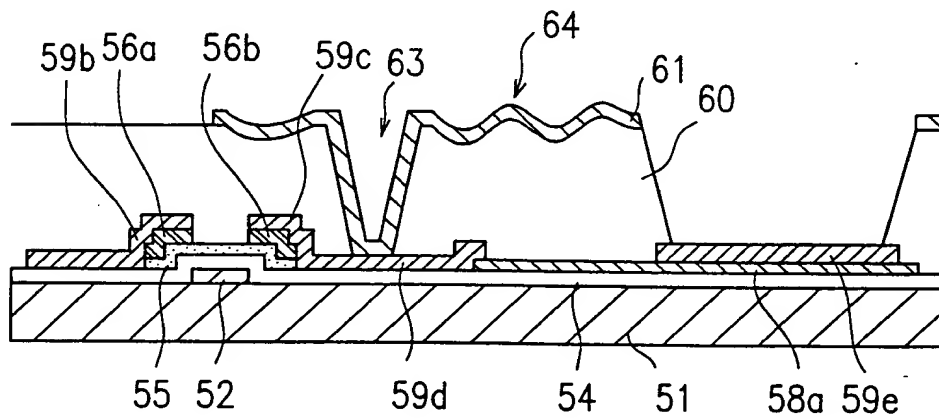
FIG. 26A*FIG. 26B**FIG. 26C*

FIG. 27B



This cross-sectional view shows a substrate with multiple layers. A base layer (51) is at the bottom, followed by a layer (54) and another (58a). On top of these, there are several patterned layers and structures. Labels 59b, 56a, 56b, 59c, 63, 64, 61, and 60 point to various features on the upper surface. Labels 55, 52, 59d, 54, 51, and 58a point to features on the lower surface or within the substrate layers.

FIG. 28A

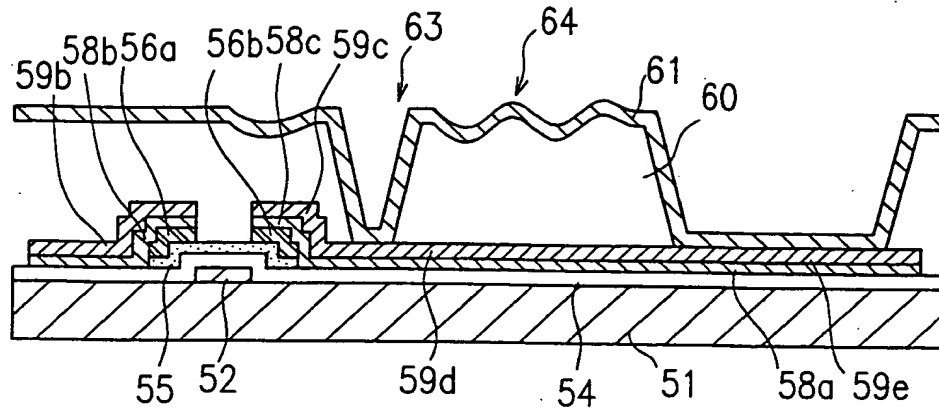


FIG. 28B

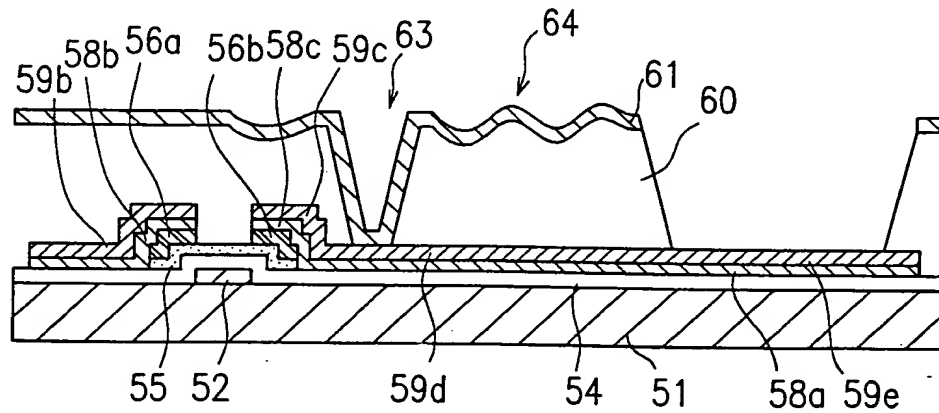


FIG. 28C

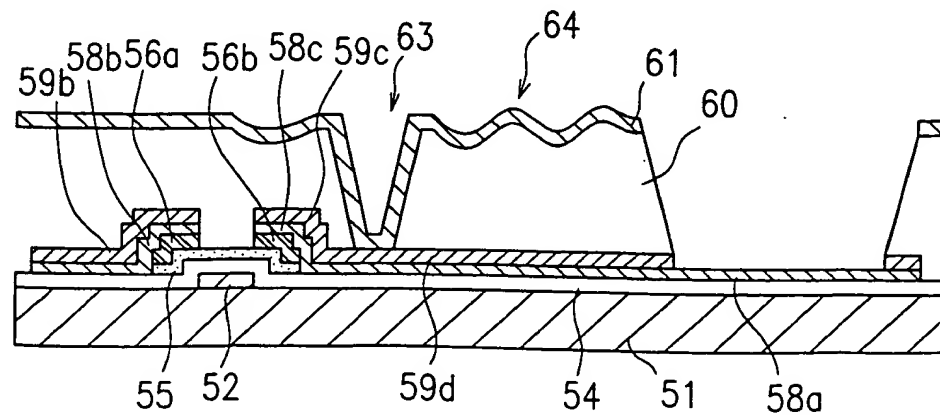
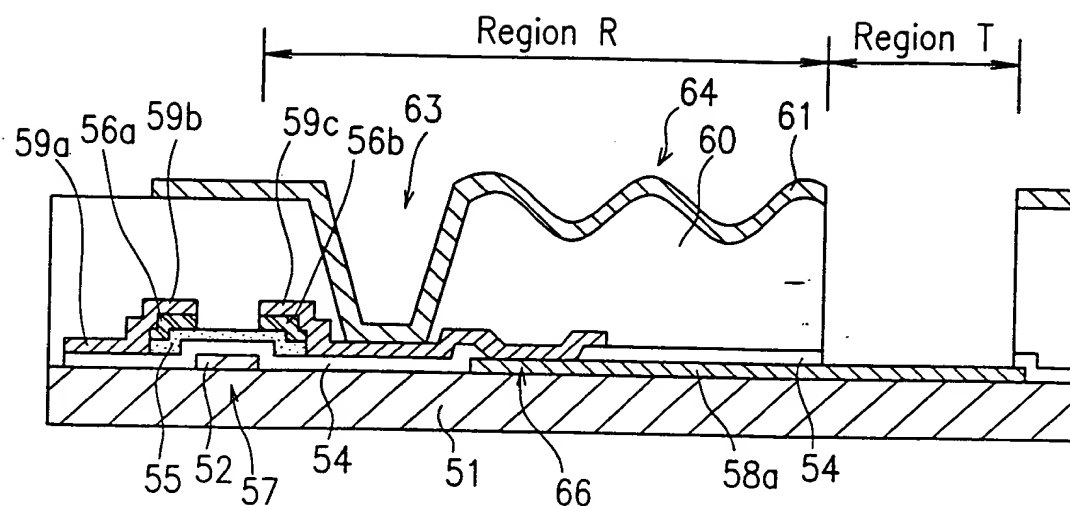
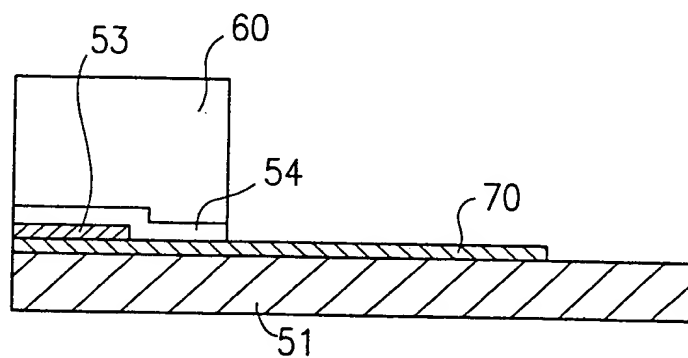
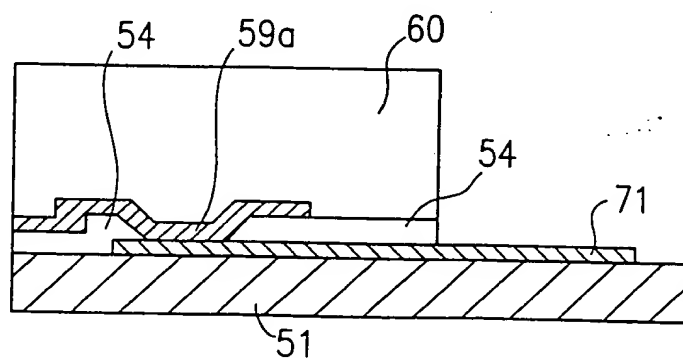


FIG. 29A*FIG. 29B**FIG. 29C*

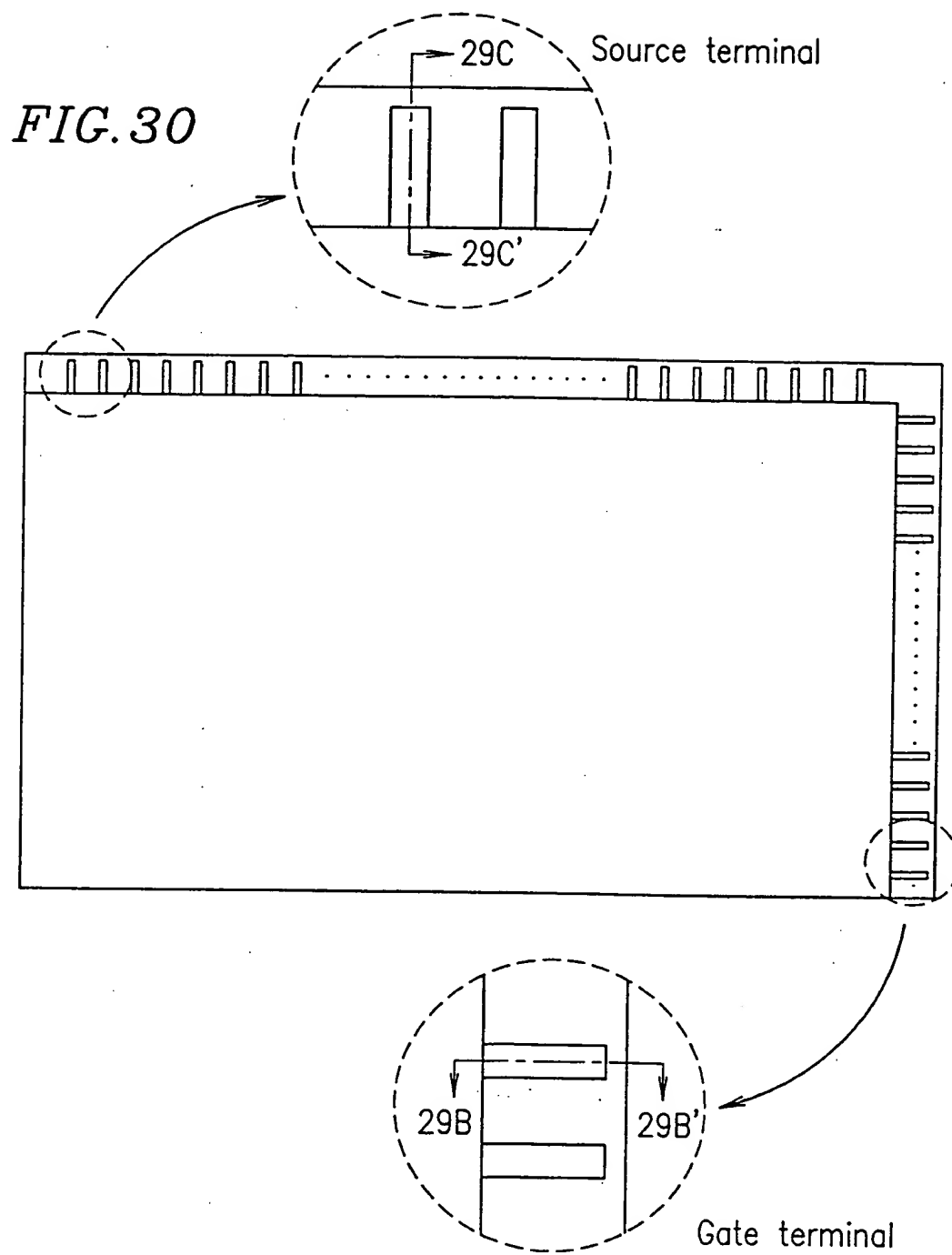


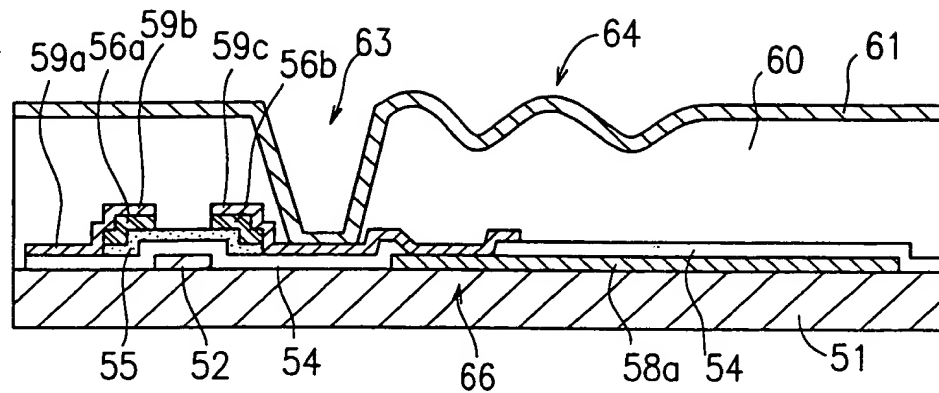
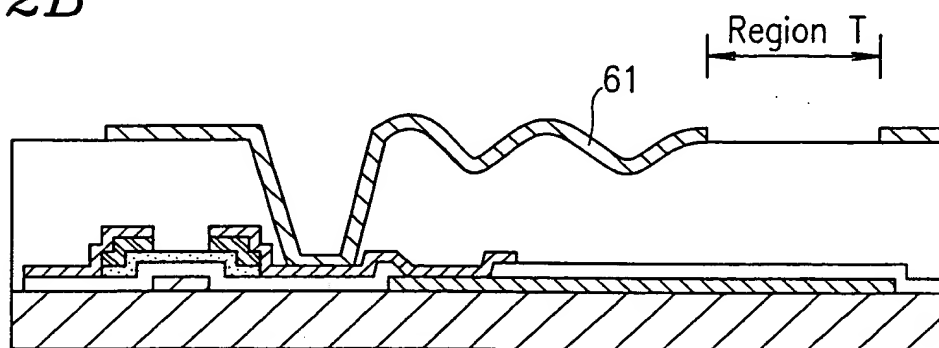
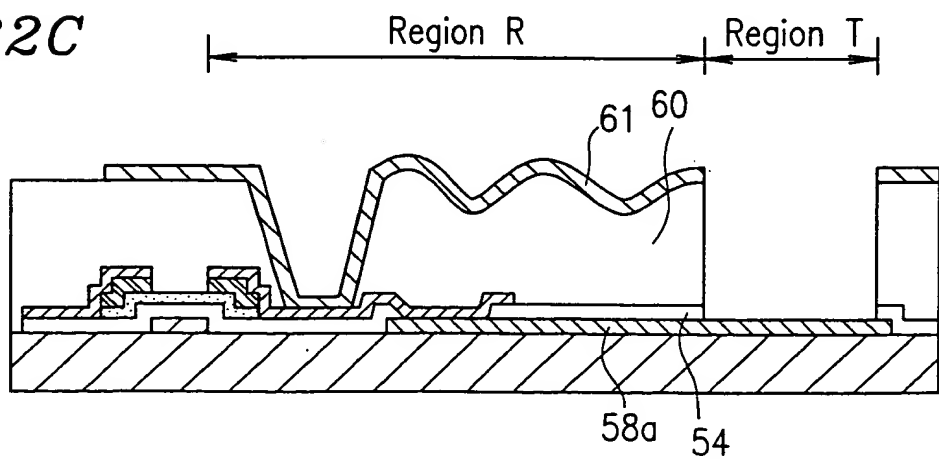
FIG. 32A*FIG. 32B**FIG. 32C*

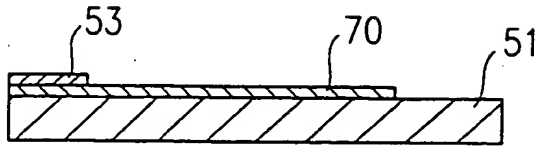
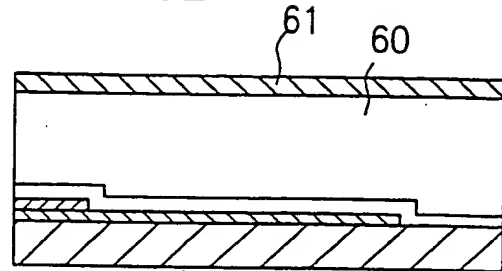
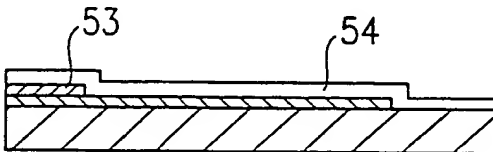
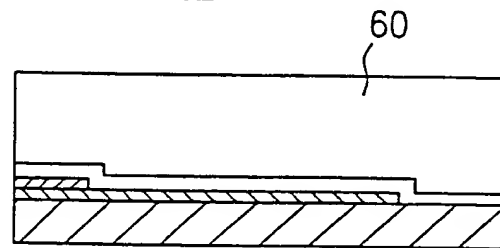
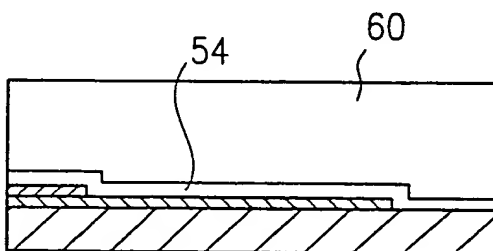
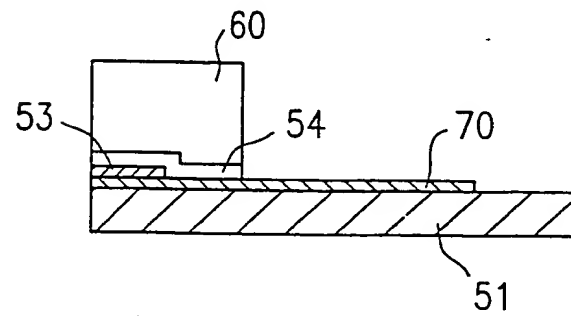
FIG. 33A*FIG. 33D**FIG. 33B**FIG. 33E**FIG. 33C**FIG. 33F*

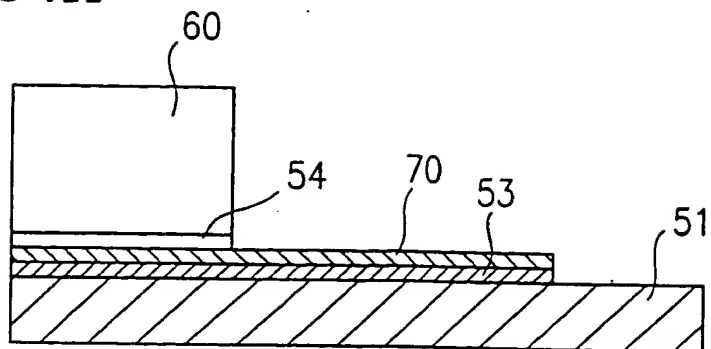
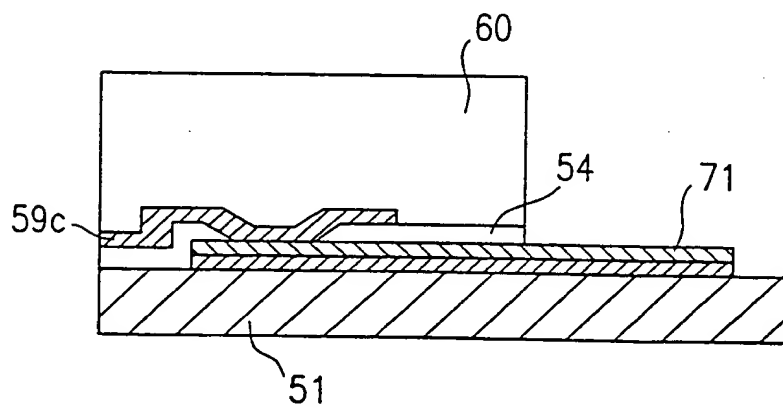
FIG. 34A*FIG. 34B*

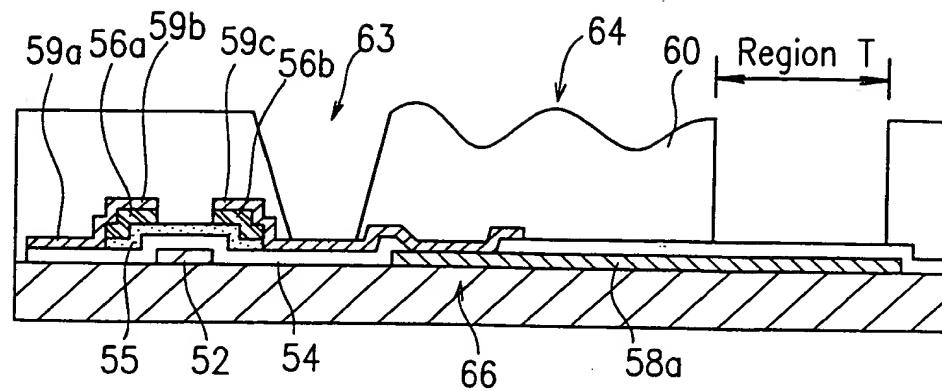
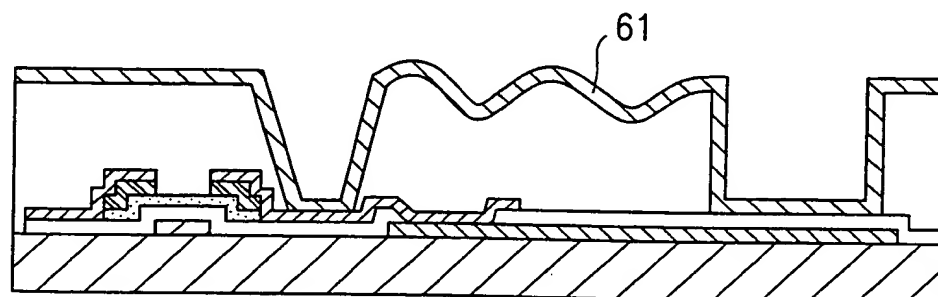
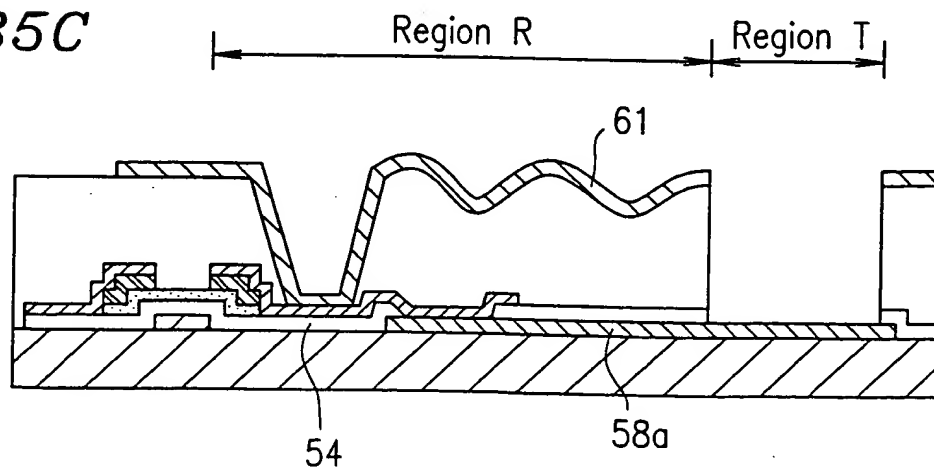
FIG. 35A*FIG. 35B**FIG. 35C*

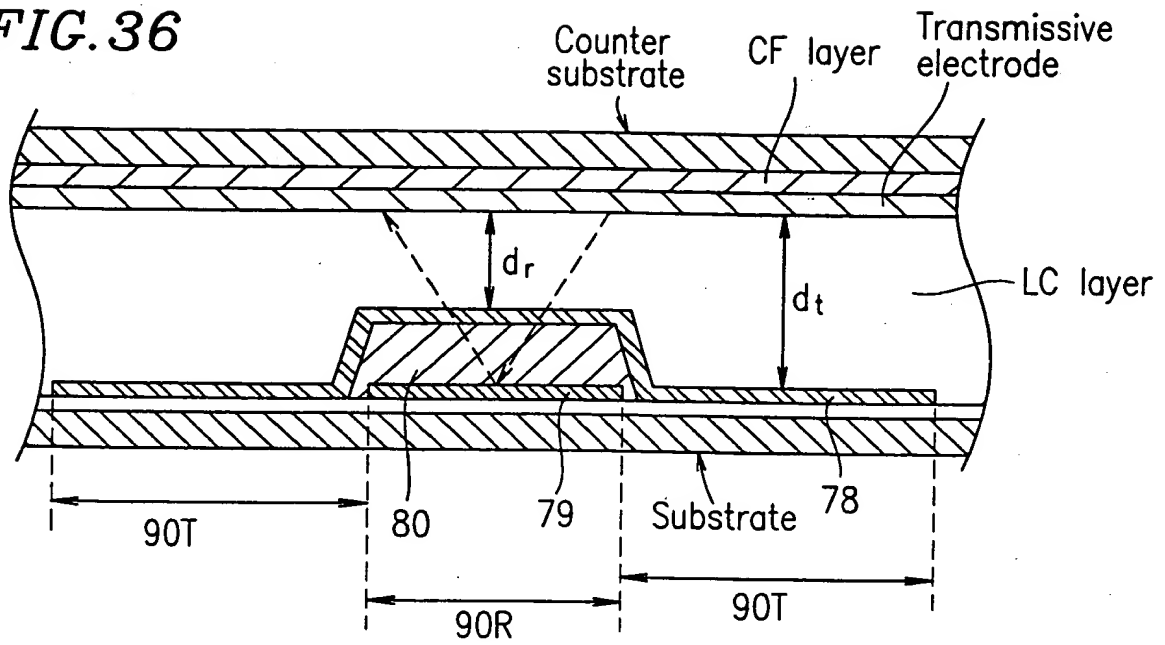
FIG. 36

FIG. 37A

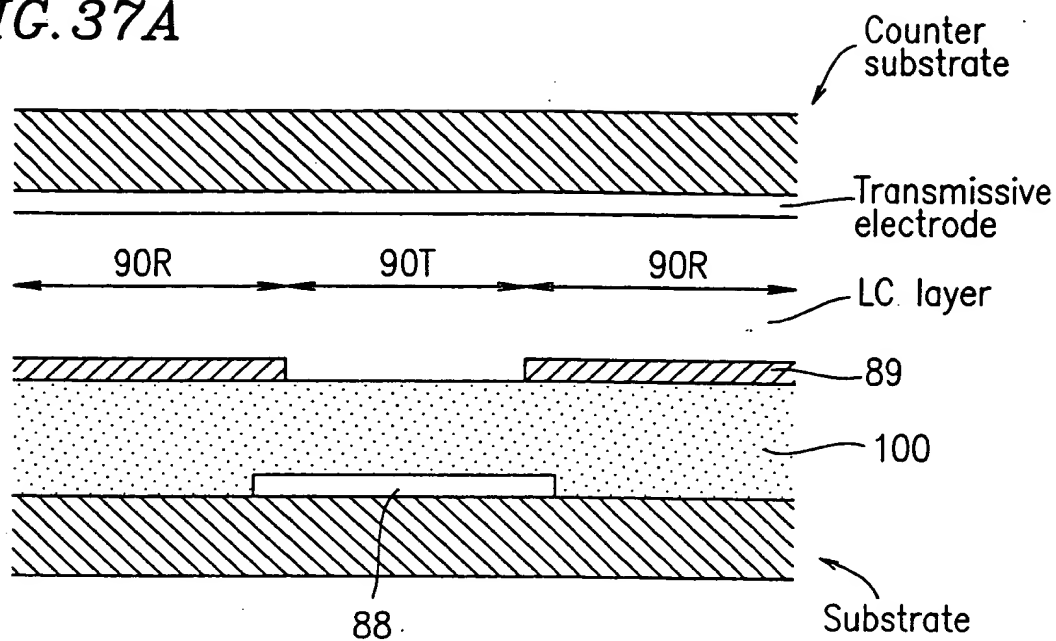


FIG. 37B

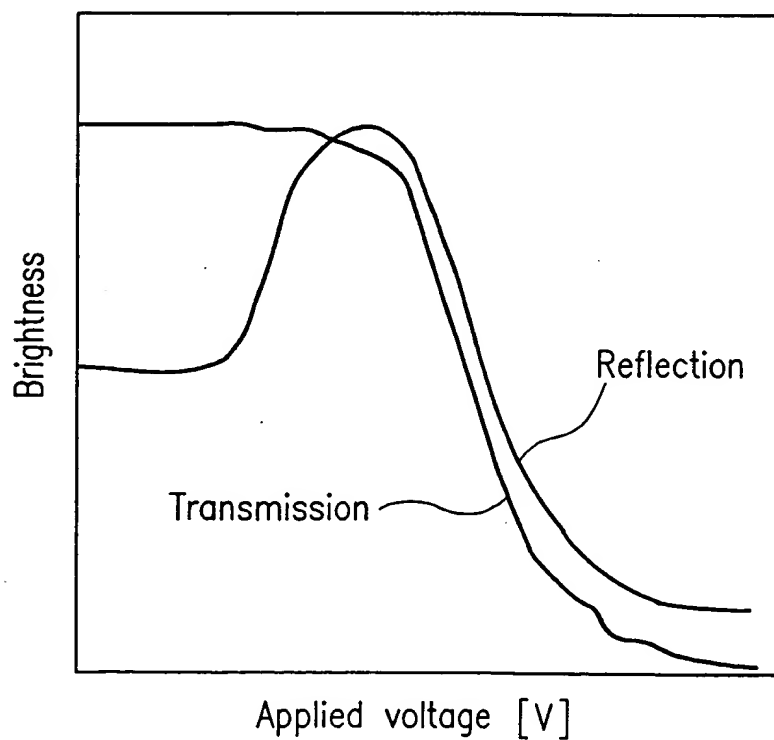


FIG. 38A

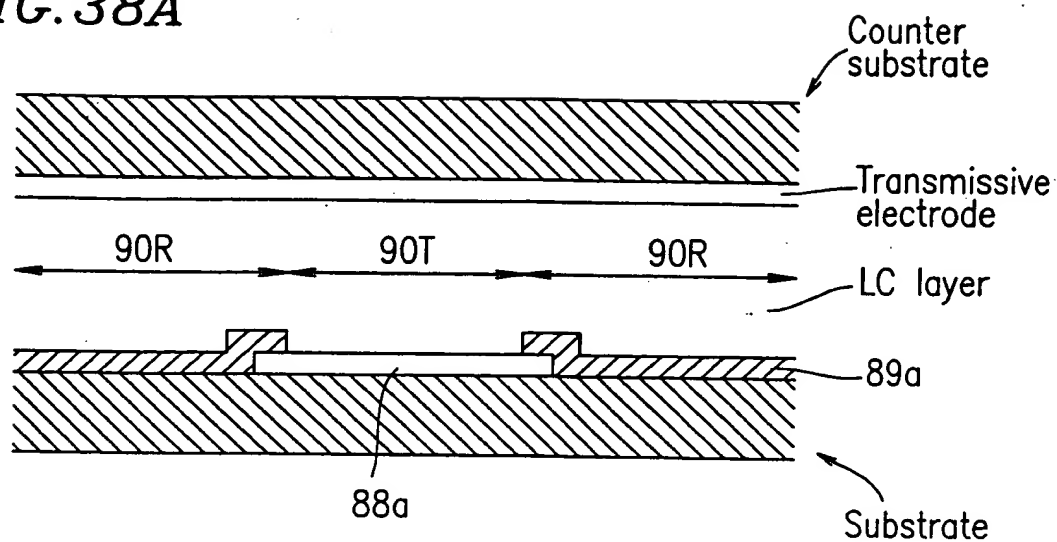


FIG. 38B

